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| Page 1  | Introduction  |
|---------|---|
| Page 2  | Joan Goodnick Westenholz                            |
|         | The Tale of Two Little Organs: the Spleen           |
|         | and the Pancreas                                    |
| Page 25 | Martin Worthington                                  |
|         | Medicine, Comedy, Power                             |
|         | and their Interconnections in Babylonia and Assyria |
| Page 40 | Markam J. Geller                                    |
|         | Skin disease and the doctor                         |
| Page 57 | JoAnn Scurlock                                      |
|         | Advantages of Listening to Patients:                |
|         | The First Description of Parkinson's                |
|         |   |





Six ans après la 49<sup>ème</sup> Rencontre Assyriologique Internationale de Londres (juillet 2003) qui avait hébergé un mercredi matin au British Museum le workshop « Ancient Mesopotamian Medicine », la 55<sup>ème</sup> Rencontre Assyriologique Internationale qui s'est tenue à Paris au Collège de France a accueilli l'atelier médecine « Dans les pas du médecin de famille mésopotamien » également un mercredi mais cette fois l'après-midi. Nous tenons à remercier chaleureusement les professeurs Dominique Charpin et Jean-Marie Durand ainsi que le docteur Lionel Marti de nous avoir permis et facilité l'organisation de cet atelier. Nous les remercions également de nous avoir autorisés à ce que les communications puissent être publiées dans le Journal des Médecines Cunéiformes tout comme l'avaient été en leur temps, celles de l'atelier médecine de la RAI de Londres.

Le bon déroulement de cet atelier doit énormément à la présence magistrale, sereine et élégante du professeur Marten Stol qui, sans compter, contribue toujours, avec beaucoup de science et de savoir, aux diverses manifestations sur la médecine mésopotamienne telles, outre Londres, celles de Lyon (Médecine et médecins au Proche-Orient ancien, Maison de l'Orient et de la Méditerranée, novembre 2002) et de Paris (« Œil malade et mauvais œil », Collège de France, juin 2006). Nous tenons tout spécialement à le remercier et à lui témoigner de notre plus amical respect.

Le programme était le suivant :

Mercredi 8 juillet 2009 après midi Collège de France, Amphithéâtre Halbwachs Animateurs: Annie Attia, Gilles Buisson, Marten Stol

14h Barbara Böck *Toward an understanding of ancient Mesopotamian (patho)physiology* 

14h30 Mark Geller *The family doctor and skin ailments* 

15h Martin Worthington Medicine and Comedy: An interpretive model

15h30 Pause café

16h JoAnn Scurlock, *The Advantage of Listening to Patients: The First Description of Parkinson's* 

16h30 Joan Westenholz The Spleen and the Pancreas

# The Tale of Two Little Organs: the Spleen and the Pancreas Joan Goodnick Westenholz

This article could only have been written due to the opportunity provided by Annie Attia and Gilles Buisson for organising a workshop on medicine as part of the RAI held in Paris 2009, their generous invitation to come to that workshop and for their encouragement to pursue my anatomical investigations. For the past decade, I have been working together with Marcel Sigrist on the lexical list Ugu-mu<sup>1</sup> in order to deduce the anatomical knowledge of the ancient Mesopotamians.<sup>2</sup> In this article, I will concentrate on the conundrums and paradoxes arising from our study of two little organs: the Spleen and the Pancreas.

In his 2006 article "The Digestion of Food According to Babylonian Sources," Marten Stol summarized the consensus among Assyriologists on the identification of the 'spleen'. He stated (2006: 112) that the Akkadian word *tulīmu* signifies "spleen", supporting his statement with other Semitic etymologies.<sup>3</sup> As its Sumerian equivalent, he accepted the logogram BI.RI which occurs in extispicy and in medical texts. He posited that BI.RI does not seem to be a Sumerian word but rather looks like an imitation of BIR, the sign for "kidney", read in Sumerian as ellag. He pointed out (2006: 112 and note 83) that on occasion there may be confusion between these two terms, but they are usually distinguished. For example, he cited a namburbi on extispicy speaks of "either the kidney (BIR) has disappeared or the spleen (BI.RI) twitches" (Stol 2006: 112 correcting Maul 1994: 433).

Moreover, Stol observed (2006: 113) that there is another Sumerogram for "spleen", ŠÅ.GIG as well as ŠÅ.GI<sub>6</sub> meaning "the black/dark inside". He noted that this expression is attested in a bilingual lexical text from Ebla where šà.gi<sub>6</sub> is equated with *ti-'à-mu*, probably "dark" (cf. Akkadian *da'āmu* "to be dark") and that the later lexical tradition (Hg. D 55f.) equates Sumerian "black inside" first with Akkadian "the black intestine" (*irru* 

<sup>&</sup>lt;sup>1</sup> The phonetic reality of the first-person possessive pronoun in Sumerian is most probably  $\hat{g}u_{10}$ . The present transliteration maintains the traditional reading of the name of the series.

 $<sup>^{2}</sup>$  For a review of this series, see Westenholz and Sigrist 2008. Even if Ugu-mu is just a list of names of parts of the body rather than an anatomical treatise, as pointed out to me by Miguel Civil, it still provides our only systematic source for these names.

<sup>&</sup>lt;sup>3</sup> Citing Militarev and Kogan 2000: 248f. no. 278 in footnote 78 and adding a citation of an Ugaritic omen text: "there is no spleen (*thl*) in it" see also del Olmo and Sanmartín 2003: 888). In footnote 79, he refers to Åke Sjöberg (1998: 246 note 15) who observed that the word may reflect the root \**zlm*, attested in Arabic and Aramaic-Hebrew words and meaning "dark".

*şalmu*), and then with *tulīmu*. In addition, the complex UZU ŠÀ.GI<sub>6</sub> is attested in a medical text (BAM 305) in the meaning a "dark mood". This range of meaning in the Mesopotamian sources has its echo in the Greek as pointed out by Stol (2006: 113): "The Greeks spoke of "black" or "dark" intestines and "black bile" originating in the spleen".<sup>4</sup>

On the other hand, the identification of the pancreas has been passed over in silence. **Chart I** summarizes present situation as regards to these two little organs.

### CHART I: ACCEPTED CHART OF ANIMAL AND HUMAN ANATOMICAL NOMENCLATURE OF INTERNAL ORGANS

| Body Part | ANIMAL (extispicy and meat |            | HUN                   | <b>AN</b> |
|-----------|----------------------------|------------|-----------------------|-----------|
|           | cu                         | its)       |                       |           |
|           | Sumerian                   | Akkadian   | Sumerian              | Akkadian  |
| Spleen    | BI.RI                      | țulīmu     | BI.RI                 | țulīmu    |
| Spleen    | ŠÀ.GI <sub>6</sub>         | irru șalmu | ŠÀ.GI <sub>6</sub>    |           |
|           | ŠÀ.GIG                     | {țulīmu}   | ŠÀ.GIG                |           |
| Kidneys   | BIR (ellag <sub>2</sub> )  | kalītu     | BIR                   |           |
|           |                            |            | (ellag <sub>2</sub> ) |           |
| Pancreas  |                            |            |                       |           |

A priori this situation of two Sumerian terms and two Akkadian terms for one organ seems illogical, especially since they both appear together in single texts. Therefore, the following investigation is undertaken to review the evidence beginning with human anatomy and then looking at animal anatomy.

#### HUMAN ANATOMY

Our prime source for human anatomy is provided by the lexical series Ugu-mu, which supplies two equations:

The first equation bi-ri- $\hat{g}u_{10} = tul\bar{i}m\bar{i}$  ( $t\dot{u}$ -li-mi) is attested in two Ugu-mu manuscripts: SC 4146:8<sup>5</sup> and HAG 5 ii 2<sup>,6</sup>. A third manuscript has HAR-mu =  $t\dot{u}$ -li-mi

<sup>&</sup>lt;sup>4</sup> In contrast, the Babylonian Talmud (tractate Berachoth 61b) refers to the spleen as the organ of laughter (שוחק טחול).

<sup>&</sup>lt;sup>5</sup> The tablets, SC 4146 as well as MS 2888, belong to the Schøyen collection and are to be published by Miguel Civil who has generously given his permission to cite the relevant passages.

<sup>&</sup>lt;sup>6</sup> The siglum HAG denotes the Heritage Auction Galleries. This tablet was first spotted by Robert K. Englund in the March 2008 auction catalogue and I would like to thank Niek Veldhuis for bringing this text to my attention. Its present whereabouts are unknown, but photographs of it are accessible as http://cdli.ucla.edu/P382664 as HAG 03.

MS 2888 ix 5'f.<sup>7</sup> The equation of the sign HAR =  $t\dot{u}$ -*li-mu* is attested in later lexical texts: Izi H 207 (MSL 13 207) and the S<sup>a</sup> Vocabulary from Emar (VI/4 no. 537: 63, see Sjöberg 1998: 246 no. 63)<sup>8</sup> as well as the first-millennium sign list Aa V/2 252 (HAR = [t]u-*li-mu* MSL 14 420). As has been noted, HAR is a common logogram for any internal organ of the body (Stol 2006: 112, Cohen 2002).

#### Some tangential remarks on BIR and BI-RI

Regarding the contention that bi-ri does not seem to be a Sumerian word and looks like an imitation of BIR (HI׊E), the sign for "kidney", it should be taken into consideration that the sign for "kidney" is never read BIR but rather ella $\hat{g}_2$  in the sign lists so there should be little room for phonetic confusion.<sup>9</sup> The reading biri is limited to the Sumerian equivalent of *tulīmu*. The entry in OB Nippur Ura 3 475 (= Forerunner to HAR-ra XV, MSL 9 45:74) provides the missing link: HI׊E with auslaut-RI which indicates that this writing should be read bir<sup>ri 10</sup> On the subject of the sign form, the archaic signs identified as BIR (ZATU 54)<sup>11</sup> resembles that of the pancreas with an elongated shape and a central vein line or veined cross-hatching. A propos its etymology, there do not seem to be any indications of non-Sumerian word formation.<sup>12</sup>

<sup>10</sup> The manuscripts for the line listed in DCCLT are:

| [uzu bir]-ri               | CBS 04843 r iii 4'       |
|----------------------------|--------------------------|
| [] bir                     | MSL 09, 41 V05 r ii 4'   |
| uzu bir                    | MSL 09, 41 V08 r ii 11   |
| [uzu] bir-ri               | MSL 09, 41 V13 o 7       |
| uzu ellaĝ <sub>2</sub> U[] | MSL 09, 41 V14 o 1       |
| uzu bir-ri                 | MSL 08/1, 81 V04 r ii 5' |
| uzu bir(HI׊E)-[]           | SLT 037 + 046 + r v 1    |

<sup>11</sup> See also the forms cited s.v. BIR at:

http://www.cdli.ucla.edu/tools/SignLists/protocuneiform/archsigns.html.

<sup>12</sup> Compare the description of Sumerian lexemes and Semitic loanwords in Sumerian in Civil 2007.

<sup>&</sup>lt;sup>7</sup> Collated by George 10/11/07: HAR "maybe"; note missing the horizontals seen in previous line 3' for  $ur_5$ .

<sup>&</sup>lt;sup>8</sup> Copy 1, Copy 2 has *bu-li-bu* which has been understood as a mistake for *tulīmu* (Arnaud Emar VI/4 p.12; Cohen 2002: 824). Perhaps, there may be an etymological relationship with the modern Hebrew word  $\forall clblb$  "pancreas". However, the entry *bu-li-bu* (11<sup>th</sup> entry for logogram HAR) does not come in the same order as *tú-li-mu* (3<sup>rd</sup> entry for logogram HAR).

<sup>&</sup>lt;sup>9</sup> el-lag BIR = ka-li-tu S<sup>b</sup> I 34 (MSL 3 98 restored), bi-ir HI׊E = sa-[pa-hu] Ea V 101 and el-lam HI׊E = ka-l[i-tu] Ea V 103 (MSL 14 400). For the definitive statement on the reading of the sign BIR see Civil/Landsberger MSL 9 47 note to line 74. The reading ellaĝ<sub>2</sub> of the sign HI×U, later HI׊E, also has the meaning "bead". For Ur III examples, see Hilgert 1998: 18-19, 300-301, no. 483: 26ff. (Ur III inventory of property of Ninhursaĝa from Nippur). The Larsa stone list (Arnaud 1994: no. 1) includes various series of different types of stones, each of which are said to have a lagab 'block', kišib 'seal' and ellaĝ<sub>2</sub> 'bead'. For further examples of ellaĝ<sub>2</sub> 'bead', see CAD T s.v.  $tukp\overline{r}tu$  "kidney-shaped bead" which combines the two meanings of the logogram ellaĝ<sub>2</sub>.

To return to Ugu-mu and human anatomy — The second lexical equation provided by Ugumu is  $ni\hat{g}_2$ - $gi_6$ - $\hat{g}u_{10} = ir$ -ri sa-al-mu "my black/dark intestine".<sup>13</sup> The Sumerian compound is  $ni\hat{g}_2$ - $gi_6^{-14}$  "the black thing". It is attested in one Ugu-mu manuscript: SC 4146: 7. Another partially broken attestation is  $\hat{s}\hat{a}$ - $[gi_6-\hat{g}u_{10}] = ir$ -ri [sa-al-mu]-um MS 2888 ix 1'-2'.

These lexemes present the following context in Ugu-mu:

| HAG 05 ii  | SC 4146   | MS 2888 ix   |
|--|---|--|
| (break)  |   |  |
|  | 6. ÚR- $\hat{g}u_{10} = ha-su-[u]-ti$                                       |  |
|  | 7. ni $\hat{g}_2$ -gi <sub>6</sub> - $\hat{g}u_{10} = ir$ - $r[i]$ şa-al-mu | 1'-2' $\check{s}\dot{a}^{?}$ -[ $gi_{6}$ - $\hat{g}u_{10}$ ] = <i>ir-ri</i> [ <i>șa-al-mu</i> ]- |
|  |   | um   |
|  |   | 3'-4' HAR- $\hat{g}u_{10} = \underline{b}a - \underline{s}u - ti$                                |
| 2'. bi-ri-[ ĝu <sub>10</sub> ]                             | 8. bi-ri- $\hat{g}u_{10} = t\hat{u}-l\hat{i}-[m\hat{i}]$                    | 5'-6' bi-ri-ĝu <sub>10</sub> = <i>țú-li-mi</i>   |
|  | 9. da-gan-a- $\hat{g}u_{10} = ri-ik-[si]$                                   |  |
| 3'. zé- ĝu <sub>10</sub>                                   |   | 7'-8' zé- $\hat{g}u_{10} = ma$ -ar-ti  |
| 4'. <sup>r</sup> ellaĝ <sub>2</sub> (BIR?) <sup>1</sup> -m | uúš- ĝu <sub>10</sub>   | 9'-10' ella $\hat{g}_2$ -múš-bar-ra- $\hat{g}u_{10}$   |
|  |   | = ka-li-it bi-ir-ki-ia   |

From their context, we can possibly infer that the 'black intestine' is related to the lungs while the bi-ri is related to the gall bladder, the bladder, and the kidneys.

#### Evidence from Other Lexical and Literary Texts

Earliest and only attestation of šà-gi<sub>6</sub> 'black heart' in a literary text is found in a composition from Abu Salabikh (OIP 99 298 v 7), probably a hymn to the mother goddess (Krebernik 1998: 321 fn. 800) in a list of terms compounded with šà. The next occurrences are in the Ebla vocabularies, both monolingual and bilingual. The monolingual versions have two entries ni $\hat{g}_2$ -gi<sub>6</sub> and ni $\hat{g}_2$ -gi<sub>6</sub>-gi<sub>6</sub> (MEE 15 232, and no. 28 rev. ii 10-11) In the bilingual vocabulary, there are two entries: ni $\hat{g}_2$ -gi<sub>6</sub> 'the black (organ)' = *ir*-*ru*<sub>12</sub> 'intestines' VE 51; and šà-gi<sub>6</sub> 'black heart' = *di*-'à-mu "dark-coloured (organ) or perhaps referring to an emotional state of depression, a black mood" VE 582.<sup>15</sup> The interpretation of *di*-'à-mu, its etymology and phonetic realization, are uncertain. Conti (1990: 163) suggested /*dihāmu(m*/

<sup>&</sup>lt;sup>13</sup> On the basis of *ir-ri* [*sa-al-mu*]-*um* (MS 2888 ix 2') and *we-er-ra sa-al-mu-um* (A 3207: 18'), the *irru* must be considered a singular noun in this composite substantive.

<sup>&</sup>lt;sup>14</sup> The phonetic reality of this sign is uncertain; it has been read  $gig_2$  and  $gigg_1$ . If so, it is homophonous with gig and this might have led to their confusion (see below).

<sup>&</sup>lt;sup>15</sup> See Sjöberg 2003: 530f., no. 51 and earlier scholarly discussions. There is a third term which may be related: šà-gig-uš<sub>x</sub>(LAK 672).

from Sem. \**dhm* as did Sjöberg (2003: 531, note 8) while Militarev and Kogan (2005: 344, s.v. No. 278) posited /*țilḥāmu*/ in accordance with \**țu/alḥīm*- (Militarev and Kogan 2000: 248f., s.v. No. 278) and thus regarded the Ebla form as an early antecedent of Akkadian *țulīmu*.

An enigmatic reference occurs to *tulimu* in an Old Babylonian literary catalogue listing incipits of compositions: lu-pí-iš-ši a!-a!-[r]a-am tù-li-ma-am pī (KA) na-ap-ša-ri (George 2009: 72, No. 12:16) which George (2009: 73) translates "I shall deck her out with flowers(?): spleen, the mouth of the gullet". While the use of body parts in various types of love lyrics is well known, this is the first metaphor containing *tulīmu* as well as *napšāru* 'uvula'.<sup>16</sup> It is also the first time that the *napšāru* has a mouth. Since this metaphor is not transparent as regards its literal sense, another possible reading of this line might be: lu-bi $i\check{s}-\check{s}i^{17}$  ú!<sup>18</sup>-[r]a-am tù-li-ma-am pī (KA) na-ap-ša-ri "I will cause her to smell bad: the vulva (like the) *tulīmu* (rising to) the mouth of the gullet". It is common for body parts to smell bad in general, and in the erotic language of the so-called love lyrics and incantations in particular. The stench could be from regurgitation, bile or even fecal vomitus. Since the idiomatic Akkadian phrase commonly found in literary texts is martam mâ'u 'to vomit bile',19 there could have occurred some confusion in internal organs in this line. However, in pancreatitis, the inflammation of the pancreas, nausea and vomiting are prominent symptoms (Taber 1969: P-9f.). It is to be noted that the pancreas excretes pancreatic juice secretions to help in digestion (Taber 1969: P-9). The question is whether the ancient Mesopotamians were familiar with the cause and symptoms of this malady.

#### Evidence from Medical Texts

In the first millennium, there exist only a handful of medical texts that assign prescriptions for diseases of the *tulīmu*, occasionally also written BI.RI. These prescriptions are found in the therapeutic series *bulţu* É *da-bi-bi*. Few symptoms are described. The most common symptom is that the *tulīmu ittanazzaz* "continually stands up / protrudes". The organ is

<sup>&</sup>lt;sup>16</sup> CAD *napšāru* "uvula". This lexeme is omitted in Militarev and Kogan 2000. The Ugu-mu equation is: níg-nu-[?]-mu = *na-ap-ša-ri* MS 2888 vi 19-20.

<sup>&</sup>lt;sup>17</sup> The probable consistent orthography of this text renders the syllable /pi/ with PI, consequently the syllable /bi/ rather than /pi/ should be represented by BI as George himself notes (p. 72) and therefore suggests an alternative interpretation of these lines: *lu-bi-iš ši-a*!-*a*!-[*r*]*a-am* "I will put the dawn to shame" from  $ba'\bar{a}su$  B. My suggestion is based on  $ba'\bar{a}su$  A.

<sup>&</sup>lt;sup>18</sup> The sign shape of ú apparently varies in this text, with a long final vertical (lines 10, 28), and short verticals (12, 27, 30). The instance in line 10 is very similar to the broken sign in line 16. <sup>19</sup> The phrase is considered to be an epic formula by Hecker 1974: 169.

written syllabically in the first prescription: šumma amēlu ţú-lim-šú DU.DU-az (BAM 77:30'), and logographically in the second prescription: šumma amēlu BI.RI-šú DU.DU-az (BAM 77:33'). This description probably refers to an enlarged organ, palpable when the abdomen was examined. Another is that it is painful: "If an individual's *tulīmu (tú-lim-šú)* causes him pain (*ikkalšu*) and he does not sleep, day and night; his trunk (*pagru*) keeps 'heat' (*umma u[kâl]* (BAM 77: [20'] // BAM 78:1). The prescription given is remarkable in that it adds a recommendation to visit a temple: "he shall visit the sanctuary of Marduk and he will recover" (BAM 77:21' // BAM 78:2). Whereas in most cases of problems with the *tulīmu*, plants are the prescribed medication,<sup>20</sup> in instances of these *tulīmu* / BI.RI infections, a concoction made from the *tulīmu* / BI.RI of a dog (frequently black), is prescribed (BAM 77:30'[*tulīmu*], 33' [BI.RI], 39'[BI.RI]) together with the *tulīmu* or BI.RI of a specific lizard, whose name is articulated as *tašlamtu* (e.g. BAM 77:30'f. and parallels).<sup>21</sup> As Stol noted (2006: 113), this is an unusual remedy.<sup>22</sup>

The text: DIŠ NA *tú-lim-šú* KÚ-šú (BAM 77:[ 20'] // BAM 78:1) was explicated in an Achaemenid or later period commentary from Nippur as follows: *ina* ŠÀ ŠÀ.GIG : <sup>d</sup>SAG.ME.GAR : ŠÀ.GIG : *tu-li-mu* (Civil 1974: 336, 11N-T4:7). The translation given in CAD Ţ p. 124 lexical section is: 'If a man's spleen causes him pain, (comm.) in (the tablet with the incipit) "ŠÀ.GIG (means) Jupiter," (is found the lexical equation) ŠÀ.GIG (means) spleen". The first point to be noted in this late commentary is that the term ŠÀ.GIG means "sick innards or viscera" which are here identified with the planet Jupiter and secondly equated with *tu-li-mu*. The term ŠÀ.GIG as well as ŠÀ.GI<sub>6</sub> are identified with the organ *tulīmu* in late lexical equations in Hg. D 55f. (MSL 9 35).<sup>23</sup> These learned equations are not reflected in the medical texts.

The similar and possibly homophonous<sup>24</sup> term  $\check{S}A.GI_6$  (CAD  $\intercal$  *tulīmu*, usage a)—2') occurs in medical texts but in diagnostic rather than therapeutic context:

<sup>&</sup>lt;sup>20</sup> BAM 78: 10-15 contains a list of herbal remedies, possibly for the cure of a splenic affliction.

<sup>&</sup>lt;sup>21 d</sup>NIN.KILIM.EDEN.NA *ša taš-lam*!(wr. TE)-*tum* MU.NI (BAM 77:30'f.); *induhallatu ša* EDIN [..]*ša taš-lam-tum* MU.NE (BAM 77:34'); [*induhallatu*] *ša* EDIN *ša taš-lam-tum* MU.NE (BAM 77:40'); *tú-lim anduhallatu* [*ša* EDIN *ša ta*]*š-lam-tum* MU.NE (BAM 77:46'f.). Whereas the first two instances do not refer to any organ of the lizard, the organ is preserved in the fourth instance. The third citation contains a break.

<sup>&</sup>lt;sup>22</sup> Interestingly, the patient eats the concoction on an empty stomach (*balu patān* 32').

<sup>&</sup>lt;sup>23</sup> These two lines are similarly restored in Hg. B which has two entries equated with *tulimu*.

<sup>&</sup>lt;sup>24</sup> They could be homophones depending on the phonological representation of GI<sub>6</sub>. Note that the ePSD and DCCLT read the logogram for "black" as bisyllabic giggi. Stol (1993: 31f.) suggests that GIG in ŠÀ.GIG is an unusual writing for ŠÀ.GI<sub>6</sub> and he reads GIG written twice as bisyllabic kúkku which ePSD reserves for MI (kukku<sub>5</sub>) in the meaning 'to be dark'.

šumma irassu u šašallašu ikkalūšu kișirti ŠÀ.GI<sub>6</sub> irašši

If his chest and his back cause him pain, he is suffering from the constriction of the "Black Innards".

(Labat TDP 180:28)

More often, it occurs as a term for a disease rather than a body part:

[šumma amēlu ŠÀ.GIG.]GA maruş Š[À].GI<sub>6</sub>

[šumma amēlu ku-u]k-ki maruş ŠA.GI<sub>6</sub>

If an individual is suffering from "Sick Innards": It is "Black Innards". If an individual is suffering from *kukku*<sup>25</sup>: It is "Black Innards". (Köcher Pflanzenkunde 22 i 13f., Uruanna IV, see Stol 1993: 32)

To combat this "Black Innards" affliction, pharmaceutical texts give lists of various herbs<sup>26</sup> and a medical text contains a fragmentary incantation and prescription for  $\check{S}A.GI_6^{27}$  (Stol 1993: 32). In these references,  $\check{S}A.GI_6$  refers to a malady rather than an organ.

In sum, as illustrated in Chart II, there are one human organ entitled the níg-gi<sub>6</sub>, rarely šà.gi<sub>6</sub> / *irru şalmu(m)* which occurs in texts in the third and second millennium, another organ is the bi-ri / *tulīmu* which occurs in texts in the second and first millennium and last ŠÅ.GI<sub>6</sub> (rarely ŠÅ.GIG), is a term for a disease rather than an organ in the first millennium.

<sup>&</sup>lt;sup>25</sup> Stol (1993: 32) suggested the kukku is a Sumerian loanword kúkku in Akkadian. Consequently, the patient in this case would be suffering from "Darkness".

 <sup>&</sup>lt;sup>26</sup> BAM 164:10-12 (5 herbs for ŠÀ.GI<sub>6</sub>), BAM 431 v 46' (9 herbs), v 49' // 430 vi 7 (5 herbs).
 <sup>27</sup> BAM 305.

# CHART OF COMPARISON OF ANIMAL AND HUMAN ANATOMICAL NOMENCLATURE OF INTERNAL ORGANS IN OLD BABYLONIAN PERIOD

| Body<br>Part | ANIMAL (extispicy  | and meat cuts)   |  | HUMAN  |                            |
|--------------|--|--|--|--|----------------------------|
|              | Sumerian   | OB Nippur<br>Ura 3   | Akkadian   | Sumerian   | Akkadian                   |
| Pancreas     | [BI.RI in Akkadian context]  | uzu.bir <sup>ri</sup>  | (UZU). țulīmu  | bi-ri<br>HAR   | țุนโโทน                    |
| Spleen       | (ur <sub>5</sub> /HAR). niĝ <sub>2</sub> -gi <sub>6</sub><br>šà-gi <sub>6</sub><br>[ŠÀ.GIG in<br>Akkadian context] | uzu.niĝ <sub>2</sub> -gi <sub>6</sub>  | (UZU). <i>werra</i><br>șalmum<br>šagikku                   | niĝ <sub>2</sub> -gi <sub>6</sub> /<br>šà-gi <sub>6</sub>  | irru<br>şalmu(m)           |
| Kidneys      |  | uzu.ellaĝ <sub>2</sub> -<br>múš<br>uzu.ellaĝ <sub>2</sub> -<br>múš-šà-ga<br>uzu.ellaĝ <sub>2</sub> -<br>múš-bar-ra | kalītu<br>kalīt libbi =<br>kalītu<br>kalīt birki =<br>iški | ellaĝ <sub>2</sub> -múš<br>ellaĝ <sub>2</sub> -<br>múš-bar-ra<br>ellaĝ <sub>2</sub> -<br>múš-šà-ga | kalīt birki<br>kalīt libbi |

#### ANIMAL ANATOMY

Animal anatomy is known from information provided by lists of meat cuts and by extispicy texts. Meat cuts are listed in Tablet XV of the canonical lexical series Ura (HAR-ra). In the OB Nippur Ura (= Forerunner to HAR-ra XV, MSL 9 43-46) recension, there are two sets of meat cuts. The first set contains: uzu.HAR (mur) 'meat of the lungs', uzu.ni $\hat{g}_2$ -gi<sub>6</sub> 'meat of the black organ' (OB Nippur Ura 3:446-7, DCCLT = Forerunner to HAR-ra XV 44-5, MSL 9 44).<sup>28</sup> Similarly, another OB exemplar (A 07895, DCCLT,<sup>29</sup> of unknown provenance, possibly Diyala) has a similar set:

viii 12' [uzu.šà]-sig

viii 13' [uzu].<sup>r</sup>šà<sup>1</sup>-gi<sub>6</sub>

meat of the small intestines meat of the "black" innards

<sup>&</sup>lt;sup>28</sup> DCCLT 447 uzu niŋ<sub>2</sub>-giggi has the following references for the line:

uzu niĝ<sub>2</sub>-mi MSL 08/1, 81 V04 r i 12'

uzu niĝ<sub>2</sub>-mi MSL 08/1, 82 V58 o 10

uzu ni $\hat{g}_2$ -kukku<sub>5</sub> SLT 037 + 046 + r iv 7 (on the photograph there seems to be room for only one MI sign)

<sup>&</sup>lt;sup>29</sup> The text of this tablet (or tablets) A 7895A and A 7895B given in MSL 11 pp. 147 and 160-161 respectively, do not contain these lines.

#### viii 14' [uzu].HAR (mur)

#### meat of the lungs

The parallelism in the context of the animal meat cuts and the human anatomical features is clearly evident in these lists. The 'black organ' is mentioned together with the lungs. Note the secondary change from níg to šà.

In the Middle Babylonian exemplar from Emar, the same section occurs: uzu.[...], uzu. ni $\hat{g}_2$ .gig.gi.a, uzu.HAR (Hh. XV Emar VI/4 118, no. 552: 39'f.). The Emar text replaces the gi<sub>6</sub> 'dark' with gig 'sick' – a senseless substitution in the context of meat cuts. Who would eat a diseased organ? It is evidently a case of homonym replacement. This section is missing in the Canonical version of Ura/HAR-ra XV and has been restored according to Hg. D.<sup>30</sup> Hg. D 55-56 gives two Sumerian terms [uzu].šà-gig the 'meat of the sick heart' and [uz]u.šà-gi<sub>6</sub> the 'meat of the black heart'. The former the 'sick heart' is not translated but akkadianized as ŠU-ku, i.e. *šagikku* while the latter the 'black heart' is translated as *ir-ru şal-mu* 'the black intestine'. In the third explanatory column added in Hg, they are both explicated as *tulīmu* (see CAD I/J 182 irru: b 3' and Sjöberg 2003: 531).

The second set of meat cuts are those composed with the sign BIR / ellag<sub>2</sub> (OB Nippur Ura 3: 475-478, DCCLT = Hh. XV Forerunner 74ff., MSL 9 45). There are four entries: uzu.bir<sup>ri</sup>, uzu.ellaĝ<sub>2</sub>-múš, uzu. ellaĝ<sub>2</sub>-múš-šà-ga, uzu. ellaĝ<sub>2</sub>-múš-bar-ra "meat of the biri, meat of the kidneys, meat of the inner kidneys, meat of the outer kidneys (i.e. the testicles)". In the Canonical version of Ura/HAR-ra XV Gap A a4, two of these four entries are preserved: uzu.ellaĝ<sub>2</sub>-múš-[šà-ga] = MIN {[*ka-li-tum*]} *li-[ib-bi*], ellaĝ<sub>2</sub>-múš-bar-ra = MIN {[*ka-li-tum*]} *bir-[ki*]. The same two lines are partly present in Hg. B 19-20 (MSL 9 34). While the Sumerian column is completely missing, the first and second Akkadian columns are extant. Line 19 has [*ka-lit*] ŠÀ-*bi* = *ka-li-tú* "kidneys", and line 20 [*ka-l*]*it bir-ki* = *iš-ki* "testicles".

#### Evidence from Meat Cuts and Cuisine

Viscera were also consumed by the Mesopotamians. One literary composition contains a reference to the roasting of internal organs —Lugalbanda I / Lugalbanda in the Mountain Cave:  $ur_5 ni\hat{g}_2$ -gi<sub>6</sub> izi im-mi-ni-in-si translated by ETCSL as "he roasted the <u>dark livers</u> there" (Lugalbanda I 374 = Lugalbanda in the mountain cave ETCSL 1.8.2.1 line 381). Since there is no such thing as light livers, one possible translation would be: "he roasted the <u>liver and the black intestines</u>". However, this lexeme occurs also in an Ur III

 $<sup>^{30}</sup>$  [šà-gi<sub>6</sub>] = [*ir-ru ṣal-mu*] in Canonical Gap A a<sub>3</sub> b (MSL 9 11), Hg B 52-53 gives two terms for *tulīmu* but neither extant.

administrative text allocating parts of carcasses for the capital: 1  $ur_5-ni\hat{g}_2-gi_6 gu_4$  (line 7) which Hallo translated "one ... <u>spleen</u>" (Hallo 2001: 164). Since the item is counted as a singular entry, it must be one organ. Consequently,  $ur_5-ni\hat{g}_2-gi_6$  is one compound noun phrase. In this phrase, the term  $ur_5$  / HAR could be considered as a determinative and the organ would be the "black organ".

Among Akkadian sources, there are lists of meat cuts and culinary texts. While one OB list of meat cuts has both 1 UZU *tu-li-mu-um* 1 UZU *we-er-ra ṣa-al-mu-um* "meat of the *tulīmu* and meat of the black intestine" (A 3207: 17f.'), the other has just *tú-li-mu* (BM 29663: 25).<sup>31</sup> The OB culinary texts give a recipe for preparing "bouillon of the *tulīmu*" (*me-e tù-li-mi* YOS 11 25:40, see Bottéro 1995: 46). Modern cuisine does not help in the identification of these two organs. While German Milzsuppe (Spleen Soup) and Florentine crostino paté occur as names of dishes with the spleen as the main ingredient, the more common foodstuffs are those made of the sweetbread, the pancreas.<sup>32</sup>

In the early Neo-Babylonian period, an unusual record was made of the cuts of meat to which the king and the temple personnel were entitled as shares from the sacrificial sheep offered daily to Ištar and Nanaya: [10] ZAG.LU A.RI.A UZU.ELLA $\hat{G}_2$  *u* ŠÀ.GIG LÚ.TU.É.MEŠ "a choice shoulder cut, a kidney and a ŠÀ.GIG (lit. "the sick Innards") for the priests" (OECT 1 Pl. 20:5 and 29, see McEwan 1983: 187-198). In this citation as in the one cited supra, it is not a diseased organ but evidently a case of homonym replacement.

#### Evidence from Extispicy

Only one set of these lexemes is used regarding animal entrails in extispicy and that is BI.RI /  $tul\bar{t}mu$ .<sup>33</sup> The information provided by the manuals for the haruspex should be ample and sufficient enough to provide us with a good description of the organ. First, the manuals provide the position of the organ vis-à-vis the rumen (*karšum*) and the skeleton: If the [ $t\dot{u}$ ]-*li-mu-um* moves from its normal position, it may be found to the right of the rumen (YOS)

<sup>&</sup>lt;sup>31</sup> Rather than meat cuts this list of parts of the sheep could a lexical list, perhaps for the instruction of the diviner.

<sup>&</sup>lt;sup>32</sup> Sweetbreads are the thymus glands and pancreas glands of lamb, beef, or pork. The latter is called 'heart' sweetbreads. Among the many recipes are Italian Fried calve's pancreas (*Animelle di vietello in frittura*) and French *ris de veau*.

<sup>&</sup>lt;sup>33</sup> For OB ext. texts, see YOS 10 41 which contained 41 omens based on the *tulīmu* (line 66), Jeyes 1989: 170-173, no. 15; Aro and Nougayrol 1973: 41-50. Regarding any occurrence in the extispicy reports, there is no present evidence. A propos YOS 10 11 ii 24, cited by Meyer 1993: 351, note 10 and Röllig 1994, the citation refers to a description of the *ubānum*: *šumma šīrum ina šumēl ubānim kīma tulīmim šakin* "if there is a piece of flesh on the left side of the 'finger' (that looks) like a *tulīmu*".

10 41:15) or beneath or on the gate of the rumen (YOS 10 41:13, 61). Similarly, if the BI.RI has left its (normal) location and is or located beneath the backbone (BM 22694:37', Aro and Nougavrol 1973: 42), or if the BI.RI has left its (normal) location and or approaching the left (side of the) ribcage (bamtu,<sup>34</sup> BM 22694:40'f., Aro and Nougayrol 1973: 42). Second, it provides a description of the organ. Its shape and size can vary, larger, thinner or smaller (BM 22694:43'ff. Aro and Nougayrol 1973: 44). It can be extended/elongated like a saw (šaššāru, BM 22694:10' Aro and Nougayrol 1973: 42), it can be curled (kapāşu, YOS 10 41:48) or it can lie flat (naparqudu, YOS 10 41:51). It can be spherical (garir YOS 10 41:20; BM 22694:9', Aro and Nougayrol 1973: 41 [like the agricultural tool *išqarrurtum*]). The colour of the BI.RI / *tulīmu* can vary: white (*peşi* BM 22694:31' Aro and Nougayrol 1973: 42), yellow-green (urruq, YOS 10 41:22, Jeyes 1989: no.15:5'), red (sūmam sarpa, YOS 10 41:63; sūmam itaddu<sup>35</sup> BM 22694:32' Aro and Nougavrol 1973: 42), dark (tarik, YOS 10 41:29 [mādiš], BM 22694:47'ff. Aro and Nougavrol 1973: 44). The blood of the organ can become dark like dried malt (Jeyes 1989: no.15:10'). The organ seems to have two lobes, referred to as wings (kappu, YOS 10 41:31, BM 22694:6', 26', 28', 30', Aro and Nougayrol 1973: 42; and Jeyes 1989: no.15:12'). These wings can be red (BM 22694:30', Aro and Nougayrol 1973: 42), or be like the wings of a bat (*šuttinnum*, BM 22694:6', Aro and Nougayrol 1973: 41)<sup>36</sup> or an eagle (*erû*, YOS 10 41:31). They can be full of liptātum (moles) or šarūru (radiating features) (BM 22694:26', 28' respectively, Aro and Nougayrol 1973: 42). The BI.RI / tulimu can be divided (paris, YOS 10 41:27), perforated in the middle, perhaps between the lobes (pališ, Jeyes 1989: no.15:15'). The features of the BI.RI / tulimu are designated the ruggum "thin part, concavity, narrow place"<sup>37</sup> (YOS 10 41:35f., 40, 45; BM 22694:55', 65', 76', 79', Aro and

<sup>&</sup>lt;sup>34</sup> Bamtu (CAD B bamtu B) usually denotes ribcage, chest, thorax, cf. Ugu-mu [ti]-mu =  $s\acute{e}$ -li, [ti-ti-m]u = ba-am-ta-a-a (Ur bilingual UET 7 96 i 4-5). See discussion in Aro and Nougayrol 1973: 49, note to line 40'ss. For the equation of TI.TI = bamtu 'thorax, two sides or back of ribcage' see Kogan and Tishchenko 2003: 323f. who define bamtu as "back, breast, torso, trunk, body". For bamtu also possibly denoting an internal organ, see Kogan and Tishchenko 2003: 324 and note 16.

<sup>&</sup>lt;sup>35</sup> This verbal phrase is commonly understood to referring to red spots rather than red colouring.

<sup>&</sup>lt;sup>36</sup> Aro and Nougayrol (1973:48, note to line 6') suggest the similitude between the wings of the BI.RI /  $tul\bar{t}mu$  and the wings of the bat is their thinness.

<sup>&</sup>lt;sup>37</sup> The translations that have been given are: AHw 995a s.v. *ruqqu* II: "dünne, schmale Stelle"; CDA 307 s.v. *ruqqu* II "thinness; thin place, part"; Aro and Nougayrol 1973: 47 "la partie bombée"; Meyer 1993: 352: "dünne Stelle"; Röllig 1994: 108: "Schmalstelle", Koch-Westenholz 2000: 63f. "Narrow Place". For discussion and references to other previous suggestions, see Koch-Westenholz 2000: 63f. The CAD R 419 s.v. *ruqqu* links the two lexemes: the kettle and the hammered metal with the part of the exta and suggests that the *ruqqu* of the parts of the exta takes its name either from the thinness of the hammered metal or from the concavity of the shape of the cauldron but prefers the latter explanation on the basis of the occurrence of the *ruqqu* of the ear. Annie Attia

Nougayrol 1973: 44, 46), the *nibû* "protuberance"<sup>38</sup> (YOS 10 41:40, 45; BM 22694:55', 58', 61', 63' Aro and Nougayrol 1973: 44) and the būdu "shoulder" (YOS 10 41:35, 37). The first two features have yet to be identified; they could be either general non-specific or specific. These three sections, the *ruggu*, the *nibû* and the  $b\bar{u}du$  can be scared with a "weapon mark" (kakku YOS 10 41:37, 40, 45; BM 22694:58', 61', Aro and Nougavrol 1973: 42) or perforated (BM 22694:63', 65', Aro and Nougayrol 1973: 44). The ruggu and the nibû can be reversed (BM 22694:55', Aro and Nougayrol 1973: 46). The ruqqu can be curled (kapāşu, BM 22694:76'f., Aro and Nougayrol 1973: 44) or it can lie flat (naparqudu, BM 22694:79'f., Aro and Nougayrol 1973: 46). Significant abnormalities of the BI.RI / tulīmu include: yellow-green, white, and red pocks<sup>39</sup> (ziqtu, YOS 10 41:59, BM 22694:17', 20', 22', Aro and Nougayrol 1973: 42); warts (uttetu, YOS 10 41:27); šarūru-radiating feature and pappasu-mush (BM 22694:24', 25', respectively, Aro and Nougayrol 1973: 42). Further, it can be strewn with white filaments (qû peşûtu, Jeyes 1989: no.15:14') and even covered with shaggy hair (*šārtam lahim*, YOS 10 41:30, BM 22694:46', Aro and Nougayrol 1973: 44). The surface or sides can be "blunt as the foot of a bird" BM 22694:72', 74', Aro and Nougayrol 1973: 44). Scars, lesions and ulcerations (mušnigu, YOS 10 41:65, sihhu, YOS 10 41:53, sahhum,<sup>40</sup> BM 22694:67', 69', Aro and Nougayrol 1973: 44; usurtum YOS 10 41: 64) are found to occur in various momentous shapes (chains širširrī YOS 10 41:19, 55 [red]; crenellations like a wall kīma dūrim sī'ātim YOS 10 41:33, BM 22694: 14' Aro and Nougayrol 1973: 42; "footmark" šēpum, BM 22694:52', 53' Aro and Nougayrol 1973: 44, "cross-shaped mark" pillurtum BM 22694:54' Aro and Nougavrol 1973: 44). Multiple organs are inferred (Aro and Nougayrol 1973: 47 note to line 1) from the first lines of BM 22694:1', 3', 5' (Aro and Nougavrol 1973: 41) and in one passage in YOS 11 41 which indicates: [šumma x tù-l]i-mu iš-te-ni-iš iz-za-az-zu (line 57).

The SB *bārûtu* tablets have yet to be published. According to CAD Ţ p. 124b., there are three extant tablets containing the chapter on the BI.RI: BM 79-7-8,97, K.11242, K.12472. One namburbi exists to avert the evil portended: *ulu kalītu* (BIR) *halqat lu* BI.RI

suggested: il peut aussi désigner une partie anatomique fine, aplatie. Ainsi on le retrouve pour désigner une zone du foie, de la vésicule biliaire, de la rate, etc.

<sup>&</sup>lt;sup>38</sup> The translations that have been given are: AHw 786a s.v. *nib/p'u, nibûm*, "das Aufsteigen, 2) eine Protuberanz auf der Milz oder Lunge," CAD N/2 204 s.v. *nibû* (mng. uncert); CDA 252:  $n\bar{\nu}b\hat{u}$  (a feature on the spleen, lungs); Aro and Nougayrol 1973: 47 "extrêmité"; Meyer 1993: 351: repeats AHw; Röllig 1994: 108: "Vorsprung". Meyer (1993: 351) suggests that the *nibû* is located in the middle of the organ.

<sup>&</sup>lt;sup>39</sup> Meyer (1993: 352) identified the white *ziqtu* with the white pulp of the lymphatic tissue and the red *ziqtu* with the red pulp (of the venous sinuses).

<sup>&</sup>lt;sup>40</sup> For the variation of *sibbu* and *sabbum*, see Richter 2003: 442.

*išabhiț* "(if when you sacrifice the sheep) either the kidney is missing or the BI.RI is twitching" (STT 231:4, see Reiner 1967: 186, Maul 1994: 433 and Stol 2006: 112).

#### Among Materia Medica

The BI.RI of an ox, a dog and possibly a lizard are used in medications. The BI.RI GU<sub>4</sub> *išāta qalliš tukallam* "you expose the BI.RI of an ox to the fire slightly" (BAM 237 iv 25) for the cure of female with *naḫšātu*. As described above, the *tulīmu* / BI.RI of a dog is prescribed (BAM 77:30'[*tulīmu*], 33' [BI.RI], 39'[BI.RI]) together with the *tulīmu* or BI.RI of the *tašlamtu*-lizard (e.g. BAM 77:30'f. and parallels) for diseases of the *tulīmu*.

In sum, there is one animal organ entitled the (ur<sub>5</sub>/HAR).níg-gi<sub>6</sub> in Sumerian texts, there are two Akkadian words *tulīmu* and *irru şalmu* and one logogram BI.RI, in second millennium Akkadian texts. In first millennium texts, there are only logograms BI.RI and ŠÀ.GIG (see Chart II).

Having analyzed the Sumerian and Akkadian lexemes, let us now attempt to pair them with modern anatomical terminology and with a possible representation.

#### ANATOMY

#### Human Anatomy

(fig. 1, Posterior View of Spleen and Pancreas)

(fig. 2, The Visceral Surface of The Spleen)

(fig. 3, Relationship of Liver, Gall Bladder and Pancreas)

The spleen is found in the upper left quadrant of the human abdomen beneath the 9th to the 12th rib. A spleen in a healthy adult human is approximately 11 centimetres in length. The spleen is part of the lymphatic system. It is elongate-oval in shape and of a dark purplish color (see fig. 1). Since the spleen is a dark organ, the organ termed the "black intestine" is more likely to be the spleen.

The pancreas lies transversely along the back of the abdominal wall, attached to the duodenum (see fig. 1). It is a yellowish organ about 17.8 cm long and 3.8 cm wide, larger than the spleen. It is an endocrine gland and an exocrine gland which functions as part of the digestive system. Its relation to the stomach (or vomitus) would suggest that the pancreas was designated the  $tul\bar{n}mu$ .



Fig. 1, Posterior View of Spleen and Pancreas



Fig. 2, The Visceral Surface of the Spleen

Nevertheless, Scurlock and Andersen (2005:135-136) posited that the *tulīmu* is probably spleen in medical texts, since the diseases related to *tulīmu* seem to be those of the spleen. In particular, 'Standing up' is an apt description of an enlarged spleen. It is apparent that the anatomical terms were confused or not understood in the first millennium sources.

#### Animal Anatomy

#### IMAGES

The spleen of the sheep is found beneath the backbone in the abdomen above the rumen under the  $12^{\text{th}}$  rib (Popesko 1979: Abb. 73, 76). This position of the spleen next to rumen, as pointed out by Meyer 1993: 349, reflects the description of the position of the BI.RI =  $tul\bar{n}mu$  in the extispicy texts vis-à-vis the rumen (*karšum*) as well as its position in reference to the ribcage. The pancreas of the sheep lies close to its liver and kidneys on the right side of the abdomen behind the ribcage (Popesko 1979: Abb. 70, 73). The descriptions found in extispicy texts such as the colour yellow-green would match the pancreas rather than the spleen. Consequently, the anatomical identity of the BI.RI =  $tul\bar{n}mu$  cannot be definitively determined.

#### The Model

In 1993, Jan-Waalke Meyer identified an uninscribed object from Mari as a model of a healthy sheep spleen although noting that it had earlier been identified as a model of a pancreas. He maintained that the shape and appendages could be identified with distinct parts of the sheep's spleen. In particular, Meyer (1993: 349, note 7) considered that the lack of lobular formations shown on the model negate its identification with the pancreas. According to Meyer, the lateral protrusions on the model are the strip-like protuberances of the *hilus lienis<sup>1</sup>* and the four central protrusions represent the cut-off stumps of the mesenteric ligaments. He then applied the terms known from extispicy sources describing the BI.RI /  $tul\overline{n}mu$  to the model (fig. 2): identifying the *kappu* with the lateral protrusions,

<sup>&</sup>lt;sup>1</sup> This description of the *hilus lienis* differs from others which refer to the *hilum* as a fissure along the median plane of the gastric surface of the spleen giving passage to the splenic vessels and nerves: *hilum splenicum, hilum lienis, porta lienis* as can be seen on Popesko 1979: Abb. 76. For an image of the human *hilum splenicum,* see fig. 2.



Fig. 3, Relationship of Liver, Gall Bladder and Pancreas

locating the *nibû* in the middle of the model and as the designation of the four stumps (351) and positioning the *ruqqu* in the tapering region below the two projections (352). He did not mention the *būdu*-shoulder and thus did not identify all the elements of the BI.RI / *tulīmu* on the model. Consequently, his identification is flawed because the lateral protrusions and the four stumps are not the significant physiological markers of the sheep's spleen and his comparison with the description of the BI.RI / *tulīmu* does not agree fully with its known parts.

#### CONCLUSIONS

As in Chart II, the tentative identification of the two small organs are bi-ri =  $tul\bar{n}mu$ "pancreas" and ni $\hat{g}_2$ -gi<sub>6</sub> =  $irru \ salmu(m)$  "spleen" (lit. "the black thing" [Sum.] / "black intestine" [Akk.]). At some point, another logogram  $\dot{s}a.gi_6$  was introduced. Finally,  $\dot{S}A.GI_6$ and  $\dot{S}A.GIG$ , which may have originally been different lexemes connoting different meanings, fell together because of their homonymity and their meaning shifted to a description of a disease. Thus, there was only one lexeme left in the first millennium for the description of the organ: bi-ri =  $tul\bar{n}mu$ .

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<sup>&</sup>lt;sup>1</sup> The abbreviations in this article follow the conventions of *The Assyrian Dictionary of the* University of Chicago (CAD), and The Sumerian Dictionary of the University Museum of the University of Pennsylvania (PSD), with the following additions: CDA, A Concise Dictionary of Akkadian, 2<sup>nd</sup> ed. [SANTAG: Arbeiten und Untersuchungen zur Keilschriftkunde 5], edited by Jeremy Black, Andrew George, and Nicholas Postgate, Wiesbaden: Harrassowitz Verlag 2000; CDLI, Cuneiform Digital Library Initiative, directed by Robert K. Englund (University of California at Los Angeles) and Peter Damerow (Max Planck Institute for the History of Science [MPIWG], Berlin) (http://cdli.ucla.edu/index html); DCCLT, Digital Corpus of Cuneiform Lexical Texts, directed by Niek Veldhuis of the University of California at Berkeley (http://psd.museum.upenn.edu/dcclt), Berkeley, 2003 on; ETCSL, The Electronic Text Corpus of Sumerian Literature, Black, J.A., Cunningham, G., Ebeling, J., Flückiger-Hawker, E., Robson, E., Taylor, J., and Zólyomi, G., (http://etcsl.orinst.ox.ac.uk/), Oxford: 1998-2006.

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# Medicine, Comedy, Power And their Interconnections in Babylonia and Assyria Martin Worthington

A stimulating paper of 2001 by Franco D'Agostino observed that the small extant corpus of Babylonian<sup>1</sup> 'comical' compositions contains a strikingly high concentration of healing professionals.<sup>2</sup> On the strength of his extremely interesting observation, D'Agostino posed the equally interesting questions: is this significant, and, if so, how?

The answer provided by D'Agostino was, in its essentials, that the deployment of healing professionals in comedy served a cathartic function. In other words, as they were people who trafficked with demons and the like, Babylonians and Assyrians viewed healing professionals with a degree of unease; laughing dispelled this.

A difficulty with this interpretation, however, is that, in at least one of the comic compositions (the *Poor Man of Nippur*), the audience is not invited to laugh *at* the healer, but *with* him. If this does not invalidate the hypothesis of a cathartic function here, at least it calls it into question. While catharsis may well be part of the picture, we hold it is not the full story. In particular, we believe that the Babylonian compositions can be illumined by consideration of the role of doctors in other literary traditions. Accordingly, we propose to consider the question afresh.

#### 1. The comic corpus

The degree to which one perceives healers to be concentrated in 'comic' compositions depends, of course, on which compositions one classifies as comic. This paper will not be concerned with every Babylonian composition which has comic moments or aspects.<sup>3</sup> Rather, it will concern itself with the small number of compositions for which it is hard to

<sup>&</sup>lt;sup>1</sup> Though, like most literature from Babylonia and Assyria, the 'comic' compositions are written in Babylonian not Assyrian, they should (again like many other works) probably be regarded as belonging to the cultural heritage of both civilisations, hence 'Babylonia and Assyria' in our title. In the body of the essay we will speak of 'Babylonian comedy' after the language of composition.

<sup>&</sup>lt;sup>2</sup> D'Agostino, Aula Orientalis 19 (2001).

<sup>&</sup>lt;sup>3</sup> Any attempt to produce such a list would in any case run into many uncertainties, as it is not always easy to detect subtle humour in an alien literature (cf. e.g. fn. 4). For example, Harris, *Gender and Aging*, 121 and 127-128 detects humour in the *Epic of Gilgamesh*. There is no reason a *priori* why this should not be the case – if Evelyn Waugh's tragic *Brideshead Revisited* can, in places, be extremely funny, then why not *Gilgamesh*? (The latter's antiquity is not a good reason for scepticism). Nonetheless, it is difficult to be sure in any given passage.

escape the impression that they were *primarily* comical, and, what is more, comic in a straightforward, belly-laugh sort of way.

This restricted corpus of clearly, primarily and straight-forwardly comic compositions includes (using their modern titles) *The Poor Man of Nippur, Ninurta-pāqidāt's Dog Bite, The Aluzinnu* (or: *The Jester*), and *At the Cleaner's.*<sup>4</sup> The first three feature healers.

2. Doctors in comedy: some cross-cultural trends

Doctors<sup>5</sup> feature in comedies of many different times and places.<sup>6</sup> Some aspects of their deployment are of course tied to very specific cultural contexts.<sup>7</sup> Nonetheless, there are trends which run through different cultural and temporal settings, and it seems inadequate to explain these away as stemming from a common inheritance (such as Ancient Greek comedy). Rather, they are more likely tied to certain simple cross-cultural constants (or near-constants) in how healers interact with their patients, such as their use of difficult language, their need for remuneration, and their privileged access to and control over the patient's body. In the present section we shall draw attention to some of these trends, and in the next we shall apply these observations to Babylonia and Assyria.

First, doctors can be the butt of the joke, i.e. victims of satire.<sup>8</sup> In this function they are mocked for qualities such as verbosity, empty learning, incompetence, and greed. This

<sup>&</sup>lt;sup>4</sup> The Dialogue of Pessimism is exceptional in that it lends itself equally well to serious and comic readings (cf. e.g. Lambert, *BWL*, 139-142 vs. D'Agostino, *Testi umoristici*, 85, D'Agostino in *Fs Pettinato*, 16-17; a survey of earlier opinions is given by Foster, *JANES* 6 (1974) 82, who himself regards the composition as parody). Perhaps the scatological parody of a love song should also be added to the list (see the comments by Foster, p. 79).

<sup>&</sup>lt;sup>5</sup> For Ancient Mesopotamia we use the more general term 'healer' over the more specific 'doctor' in deference to the many obscurities which surround the exact functions of the healing professionals. By contrast, 'doctor' is a term routinely applied the other literary traditions to which reference is made in this paper, and we use it for them since 'healer' would sound unnatural.

<sup>&</sup>lt;sup>6</sup> Reiner, *Proceedings of the American Philosophical Society* 130/1 (1986) 1b notes that 'the comic figure of the doctor' is 'well exploited in folk literature'.

<sup>&</sup>lt;sup>7</sup> An example are French physicians appearing in Elizabethan English comedy. Kolin, *Elizabethan Stage Doctor*, 41 notes that their popularity has a foundation in historical fact: "In the late sixteenth and early seventeenth centuries, French doctors were part of the coterie of servants waiting on the aristocracy and even [royalty]".

<sup>&</sup>lt;sup>8</sup> Fo, *Manuale minimo*, 28 suggests they are mocked as members of high society who do not wield absolute power ('sfottuti quali membri dell'alta società che non detengono potere assoluto'). If this applied to Babylonia and Assyria, the extant corps of burlesque compositions is too small for this

happens already in Ancient Greece. Doctors do not feature as characters in Old Comedy, but in Aristophanes's *The Clouds* Socrates includes doctors among the groups of charlatan sophists,<sup>9</sup> and in the same author's *Plutos* there is a likely allusion to greed when it is said that there is not a single doctor left in Athens owing to shortage of funds for paying them.<sup>10</sup> Titles of lost plays suggest that in Middle and New Comedy the doctor became a stock character. Middle Comedy often likens cooks to doctors, one way of doing this is being to have them speak in abstruse, highly technical language.<sup>11</sup> Doctors in ancient Greek comedy often have Doric accents.<sup>12</sup>

Centuries later, their European counterparts often speak amusingly obscure pidgin Latin. Most famously employed by Molière,<sup>13</sup> this was already a feature of the *oeuvre* of Portuguese playwright Gil Vicente (1465-1537), and had precedents in the Middle Ages.<sup>14</sup> Even when speaking vernacular language, they pepper it with technical, difficult-sounding words, e.g. the surgeon in Middleton and Rowley's *A Fair Quarrel* (Act IV scene ii): spinal medul, emunctories, syncope, tumefaction, quadrangular plumation, sanguis draconis, powders incarnative, liquors mundificative.<sup>15</sup>

Avarice is another attribute well represented in European traditions, an example being the exchange with a robber in Piron's *L'Antre de Trophonius* (1722): "Your purse or your life" – "So, I take it you are a doctor".<sup>16</sup> P. Kolin coments that in English comedies

motivation to be detectable. (*The Poor Man of Nippur* mocks a mayor, who did wield absolute power).

<sup>&</sup>lt;sup>9</sup> Lines 331-334. The term Socrates employs, *iatrotechnai*, probably refers to theoreticians of medicine rather than hands-on therapists, and a scholiast connects the passage with the Hippocratic treatise *On Airs, Places and Waters*. See Jouanna in *Aristophane*, 189-190 and Cordes, *Iatros*, 55-56.

<sup>&</sup>lt;sup>10</sup> Lines 407-408. Jouanna in *Aristophane*, 189 comments that impoverishment would indeed be plausible in the wake of the Corinthian war. Cordes, *Iatros*, 53-54 argues that the passage must refer to public doctors, but this seems uncertain.

<sup>&</sup>lt;sup>11</sup> Roselli in *La comédie*, 168-169.

<sup>&</sup>lt;sup>12</sup> The origin of the association between doctors and Doric accents is probably that the best doctors came from outside mainland Greece from *asia minor* and *magna graecia*, where Doric was spoken. See Cordes, *Iatros*, 61.

<sup>&</sup>lt;sup>13</sup> On Molière's doctors see Petersen, *Doctor in French Drama* and Dandrey, *Molière*.

<sup>&</sup>lt;sup>14</sup> David-Peyre, *Littérature iberique*, 47, with ref. to Dr Witkowsky, *Les médecins au théâtre, de l'antiquité au XVIIe siècle* (Paris, 1905), unavailable to me.

<sup>&</sup>lt;sup>15</sup> Yearsley, *Doctors in Elizabethan Drama*, 71 suggests that this 'remarkable ... professional chatter' may be 'intended as light relief'.

<sup>&</sup>lt;sup>16</sup> Cited from G. Doutrepont, *La littérature et les médecins en France*. Extrait du Bulletin de l'Académie Royale de Langue et Littérature françaises de Belgique (Liège, 1933), 12-13 by Petersen, *Doctor in French Drama*, 32. Cf. also the comment by David-Peyre, *Littérature iberique*, 53 on Iberian literature of the 16<sup>th</sup>-17<sup>th</sup> centuries: 'La satire, de Gongora à Enriquez Gomez, n'a cessé de s'emparer des multiples arguments que les indélicats suscitaient alors que la médecine était devenue un moyen de s'enrichir'.

from the 1580s onwards, doctors are characterised as 'mercenary panders to the public taste, roguish charlatans, or, even when legitimate, men extremely proud and pompous ... If their noses were not fastened to urinals and their eyes were not scanning the heaves, then their hands were in a patron's pocket'.<sup>17</sup>

A mixture of all these undesirable qualities is beautifully manifest on pp. 12-13 of *Asterix in Switzerland*, where a patient is examined by a mob of doctors, said to be "more murderous than a legion armed to the teeth" when they get together. Amid their obscure disputations and suggestions for lethal-sounding remedies, the doctors fail to detect that the patient has been poisoned, and after a short while later they allow themselves be led off to a feast of boar's tripe fried in aurochs dripping, greed here doing service for the motif of avarice. The scene is lent added irony by the fact it is the poisoner who employs them.

Doctors' role in comedy is not, however, confined to being the victims of satire. For there is also the category of fake doctors (though of course not all fake doctors are comic). They can simply be figures of fun, like Despina in *Così fan tutte* (1790; Act I scene iii), or they can use the disguise to wreak comic outrage on the unsuspecting. This is a particular manifestation of the widespread motif of one person dominating another person, which extends from Itchy and Scratchy in the *Simpsons* cartoons to Pulcinella's energetic truncheon in the *commedia dell'arte*. A famous example is the disguised Sganarelle beating up Géronte in Act II, Scene 2 of Molière's *Le médecin malgré lui* (1666).

Third, doctors can be vehicles for the mobilisation of sexual and scatological humour. Some examples: in Fletcher's *Monsieur Thomas* of 1639 (Act II scene v), of two physicians holding a chamber-pot one asks the other "Do you mark the faeces?". In the same vein, a physician in Regnard's *Le légataire universel* (1708) is called "Clistorel". In Chettle's *The Second Part of the Return from Parnassus* (1603) a character named Philosomus disguises himself as a French doctor. A client for whom he prescribes a suppository tells him "A great gentleman told me of good experience, it was the chief note of a magistrate, no to go to the stoole without a physition" (lines 531-533). These traditions are upheld in Alan Bennett's *The Madness of George III* (1991), where one Dr Peyps is comically fixated with the king's stool and urine.

All of these trends (satire; fake doctors; scatology) occur in Babylonian comedies.

<sup>&</sup>lt;sup>17</sup> Kolin, *Elizabethan Stage Doctor*, 75.

#### 3. Healers in Babylonian comedy

As noted above, healers appear in three Babylonian comic compositions: *Ninurta-pāqidāt's Dog Bite* (also known as *Why Do You Curse Me?*), *The Poor Man of Nippur*, and *The Aluzinnu* (also known as *The Jester*).

*Ninurta-pāqidāt's Dog Bite*<sup>18</sup> begins with a man from Nippur being bitten by a dog.<sup>19</sup> He makes his way to the nearby city of Isin to be healed (*ana bulluțišu*), and a high priest (*šangû*; more literally 'chief temple administrator') of Gula there utters an incantation for him.<sup>20</sup> As payment, the patient invites the healer back to Nippur, to be clothed and fed: on arrival he should ask directions of a vegetable-seller. When the healer reaches Nippur and finds the vegetable seller, he repeatedly misunderstands her and mistakes what she says for insults, so she indignantly orders a group of apprentice scribes to chase him out of town with their *imšukku*s, which can be interpreted both as 'practice tablet' and 'chamber-pot'.

This story resonates with strikingly many of the themes discussed above. First, as observed by A. R. George,<sup>21</sup> the plot can be understood in terms of the patient successfully evading the healer's fee. Indeed, seen in these terms it is striking that the (presumably quite wealthy) high priest of Gula was willing to make his way to a different city in return for a cloak and a banquet. One suspects that the theme of medical avarice lurks in the background.

Secondly, the story involves a failure of communication. The nature of the misunderstanding between healer and vegetable seller is debated: she may have spoken Sumerian, or an obscure dialect of Babylonian.<sup>22</sup> In the latter case, there is the interesting

<sup>&</sup>lt;sup>18</sup> Translated in Foster, *Before the Muses*, 937-938. The most recent edition is by George, *Iraq* 55 (1993).

<sup>&</sup>lt;sup>19</sup> In some respects the composition is closely tied to the school *milieu* (cf. Cavigneaux, *BaM* 10 (1979) 113 and George, *Iraq* 55 (1993) 63-65), but this does not impinge on the present discussion. <sup>20</sup> That the healer is termed *šangû* does not exclude his also having other titles (such as  $\bar{a}sipu$ ): we

<sup>&</sup>lt;sup>20</sup> That the healer is termed *šangû* does not exclude his also having other titles (such as  $\bar{a}\dot{s}ipu$ ): we should simply suppose that *šangû* was the highest-ranking of several titles he might have had. George, *Iraq* 55 (1993) 73, argues that 'being from Isin, he is certainly an *asû*', though for this to be watertight it would be necessary to suppose there were no  $\bar{a}\dot{s}ipu$ s educated in Isin, which seems unlikely. As observed by Geller, *JMC* 10 (2007) 34-35 the evidence linking  $\bar{a}\dot{s}ipu$ s to temples is much stronger than that linking *asû*s to temples (but the Gula temple might have been an exception). For a possible occurrence of the word  $\bar{a}\dot{s}ipu$  in the story see fn. 23.

<sup>&</sup>lt;sup>21</sup> George, *Iraq* 55 (1993) 72. George notes the possible dimension of inter-city rivalry between Isin and Nippur, though this is questioned by D'Agostino, *Testi umoristici*, 68.

<sup>&</sup>lt;sup>22</sup> On the sole extant manuscript of the story, the vegetable seller speaks what is written as Sumerian, and for some scholars the joke is that the learned doctor cannot understand this learned language (Reiner, *Proceedings of the American Philosophical Society* 130/1 (1986) 4b; D'Agostino,

possibility that the healer thought that the vegetable seller was belittling his professional standing by saying he was not an  $\bar{a}$  sipu.<sup>23</sup> Either way, the healer's failure to understand his social inferior chimes well with the traditions of satires on medical incompetence and/or the obscurity of medical jargon:<sup>24</sup> if the vegetable seller spoke Sumerian, we may suppose that the healer is lampooned as incompetent; if she spoke Babylonian, that he is lampooned as a man of empty learning, who is not even capable of asking directions.<sup>25</sup> (It is also possible that the long personal names in the story are supposed to be redolent of medical longwindedness).

Thirdly, the ambiguity of the word *imšukku*, denoting the objects with which the apprentice scribes are to chase the healer out of town, generates scatological humour.<sup>26</sup> This is not how physicians normally mobilise it – normally it stems from patients and treatments rather than from mobs of pursuers wielding chamber pots. Nonetheless, the association is suggestive: Babylonian and Assyrian healers inspected urine for diagnostic and prognostic purposes,<sup>27</sup> so for the unfortunate healer to be driven out of town by a volley of chamber pots is ironic.

Thus Ninurta-pāqidāt's Dog Bite partakes of several elements in the characterisation of healers which are known from other traditions of comic literature.

The Poor Man of Nippur<sup>28</sup> is the story of a pauper getting his revenge after being wronged by the local mayor. The revenge is taken in three episodes. Having brutalised the mayor in

Aula Orientalis 13 (1995) 72-73, D'Agostino, Testi umoristici, 71 n. 24). George is skeptical of this on the grounds that it would have been inconceivable for a vegetable seller to speak Sumerian in Kassite period, when the story is set. He argues instead that the written Sumerian should be understood as a representation of spoken Babylonian, the alloglottography serving to reflect the difficulty of understanding the Nippur dialect.

<sup>&</sup>lt;sup>23</sup> If George's interpretation were followed, then when the vegetable seller excites her interlocutor's consternation by saying bel ul ašib 'My lord is not here' (written en nu.tuš.me.en, line 28), one might suppose that he understood her to be saying  $b\bar{e}l$  ul  $\bar{a}sip$  'My lord is not (i.e. you are not) an āšipu'.

<sup>&</sup>lt;sup>24</sup> Sumerian medical words such as *šugidimmaku* ('hand of ghost', corresponding to Akkadian  $q\bar{a}t$ etemmi) would presumably have sounded as exotic to most Babylonians or Assyrians as Greek medical words did (and do) to most Europeans. In the first millennium, when Akkadian was dying out as a spoken language, incantations in Standard Babylonian might also have sounded highfalutin'. It is, therefore, plausible to suppose that the association between medicine and linguistic obscurity which obtains in other cultures also held good for Babylonia and Assyria.

<sup>&</sup>lt;sup>25</sup> It is true that Nippur and Isin might well have had different dialects of Babylonian, but given their proximity for a well-to-do adult this should have been no insuperable obstacle. <sup>26</sup> This was by no means alien to Babylonian literature. See e.g. fnn. 4 and 33.

<sup>&</sup>lt;sup>27</sup> This is implicit in e.g. many entries in the *Diagnostic Handbook* which explain the prognostic significance of different colours in urine. See Scurlock and Andersen, Diagnoses, 98-104.

<sup>&</sup>lt;sup>28</sup> For a translation and references to editorial treatments see Foster, *Before the Muses*, 931-936.

the first, in the second the pauper disguises himself as an  $as\hat{u}$  and presents himself at the mayor's house. After demonstrating his prowess by pointing to the mayor's wounds (which he himself had inflicted), he insists on treating the mayor in seclusion, and administers a second beating.<sup>29</sup> Here we have the motif of comedy through domination, the guise of doctor being adopted because it provides privileged access to the patient's body.

*The Aluzinnu* is very fragmentary, and correspondingly difficult to interpret (this difficulty being augmented by the absence of similar writings).<sup>30</sup> It is not even clear that it is a unitary composition.<sup>31</sup> Be that as it may, the best preserved portions record the utterances of an *aluzinnu*. This word probably means something like 'trickster', 'jester' or the like.<sup>32</sup> The *aluzinnu*'s position in lexical lists is suggestive of ludicre and scatological humour.<sup>33</sup>

There are two references to healers and healing. The first occurs at ii.3'-5' of what is conventionally termed the reverse. These lines include a medical prescription:

*šumma amēlu qaqqassu* [...] *šiptu* 2(-)*ma*(-)[...] *šārta talappat u*[...] 'If a man's head [...] an incantation tw*ice* [...] you *smear* ... hair [...]'

It is unfortunately not clear whether this passage is humorous or not, so its relevance to the present discusion is impossible to determine.

The second reference to healing is much better preserved. Here the *aluzinnu* is repeatedly asked<sup>34</sup> *aluzin m ná tele''i* 'O Aluzinnu, what can you do?', and gives several replies. In one of these (r.ii.18'-25') he mentions  $\bar{a} \pm i p \bar{u} t u$ , using a rare idiom which almost

<sup>&</sup>lt;sup>29</sup> The motif of the fake doctor is widespread in many folktales which resemble *The Poor Man of Nippur* in plot (see Gurney, *An.St.* 22 (1972)), though it is uncertain whether all of them are as straightforwardly comical as the Babylonian composition.

<sup>&</sup>lt;sup>30</sup> The composition is not available in an up-to-date edition, the fullest currently available being that by Ebeling, *TuL*, 9-19. Foster, *JANES* 6 (1974) 74 n. 11 mentions that "W. G. Lambert plans a new edition", but this has not yet appeared. (Cf. Lambert *apud* Römer, *Persica* 7 (1978) 53 on the scant significance of the unpublished duplicates K. 10052 and 13864).

<sup>&</sup>lt;sup>31</sup> One column is a list associating gods with places. As it contains inaccuracies and appears on a tablet with clearly humorous portions, it has sometimes been regarded as a parody (e.g. Römer, *Persica* 7 (1978) 54), though its humorous dimension is far from certain (see the comment by Foster, *JANES* 6 (1974) 75).

 $<sup>^{32}</sup>$  Having noted the word's general meaning, we will follow the proposal by Römer, *Persica* 7 (1978) 45-46 to leave it untranslated.

<sup>&</sup>lt;sup>33</sup> Römer, *Persica* 7 (1978) 47-48 and Foster, *JANES* 6 (1974) 74.

<sup>&</sup>lt;sup>34</sup> The identity of the questioner is not clear.

certainly means that he excels at it.<sup>35</sup> On being further asked *aluzin k*  $\bar{a}$ *sipūtka* 'O *aluzinnu*, what is your  $\bar{a}$ *sipūtu* like?' he explains how he performs ritual against  $r\bar{a}$ *bişu*-demons. This, he says, involves burning down the patient's house, but at least it jolly well gets rid of the  $r\bar{a}$ *bişu*-demons, snakes and scorpions!<sup>36</sup>

While in principle one could suppose that the ludicre arises purely out of doing something badly which is normally done well, it is hard to escape the suspicion that the passage satirises  $\bar{a}sip\bar{u}tu$ .<sup>37</sup> the message is that (sometimes)  $\bar{a}sipu$ s are incompetent, and that their interventions can be overwrought and do more harm than good. This picture is fully in keeping with how doctors are portrayed in many comic literatures, and there is no reason why it should not have been done in Mesopotamia. This is not, of course, to say, that Babylonians and Assyrians (or the other peoples whose literatures were discussed above) had no faith in  $\bar{a}sipus$ ; only that, from time to time, they liked to laugh at them.

#### 4. Power as a keyword in Mesopotamian medicine

In all three of the comedies we have been considering, an important place is held by the exercise of power. In both *Ninurta-pāqidāt's Dog Bite* and *The Poor Man of Nippur* we see one person dominating another: the fake  $as\hat{u}$  dominates the mayor, and the vegetable seller and apprentice scribes dominate the healer. In the same way that the Mayor of Nippur put his body in the care of the fake  $as\hat{u}$ , thereby giving him control over it, so the  $\bar{a}sipu$ 's client in *The Aluzinnu* entrusted his house to the  $\bar{a}sipu$ . In both cases the consequences of handing power over oneself to a healer has disastrous – though, as it happens, comic – consequences.

The Poor Man of Nippur and The Aluzinnu encapsulate the idea that healers have power over their clients. Conversely, Ninurta-pāqidāt's Dog Bite portrays an individual who normally would have this sort of power over others as the powerless victim of power exercised by his social inferiors (a vegetable seller and a mob of students). Comedy is generated through reversal of roles.

<sup>&</sup>lt;sup>35</sup>  $\bar{a}$  sipūta kalāma ana qāt ya ul uṣṣi, literal meaning probably ' $\bar{a}$  sipūtu in its entirety is unable to leave my hands'. Oppenheim, JAOS 61/4 (1941) 271 takes the idiom to mean 'I myself have no knowledge of  $\bar{a}$  sipūtu', but the context strongly argues for the opposite meaning.

<sup>&</sup>lt;sup>36</sup> Healing is not mentioned specifically, but  $r\bar{a}bisu$  demons could bring illness, and the  $\bar{a}sipu$ 's function as healer is well known. Thus the ritual would have a therapeutic or prophylactic quality.

<sup>&</sup>lt;sup>37</sup> Thus also, by implication, Foster, *JANES* 6 (1974) 77 n. 19, who rejects an interpretation in terms of 'mere ineptitude'.

We should not be surprised to find the exercise of power by one person over another in comedy, nor is it surprising that healers are involved. For, as mentioned above, healers have privileged access to, and control over, people's bodies – and, in certain Babylonian and Assyrian rituals, over their possessions. They are, therefore, well suited to producing both straightforward comedies of domination (*Poor Man*; in some sense also *Aluzinnu*) and comedies of domination in which roles are reversed (*Ninurta-pāqidāt*).

What is especially worth commenting on is that the association between healers and power in Babylonian comedy recalls the central role which power had in Mesopotamian healing as a whole. Unlike Ancient Greek medicine from Hippocrates onwards, in which disease was attributed to inanimate natural entities, in Babylonia and Assyria curing a patient meant doing battle against animate, will-bearing agents (demons and witches) and assuaging angry gods. In other words, medical therapy in Babylonia and Assyria was essentially a matter of overcoming or circumventing hostile powers.

That power is a crucial aspect of magic is widely recognised,<sup>38</sup> and indeed selfevident in such English phrases as 'magical powers'. Sure enough, mention of power is made in discussions of Babylonian and Assyrian healing,<sup>39</sup> and the opening section of *Maqlû* has been studied in terms of empowering the patient.<sup>40</sup> At the same time, at least in the case of Mesopotamia, the concept's heuristic potential is still under-exploited. A powerbased model of Babylonian and Assyrian healing, in which healers seek to empower themselves and the patient over the forces of evil, is a useful analytical filter through which to examine all Mesopotamian healing practices. In several places it can help to clarify the meaning of practices whose function or significance is not obvious.

One way in which power manifests itself is through restricted knowledge. Sure enough, there was a strong epistemic jealousy surrounding Babylonian and Assyrian healing: the initiates guarded their knowledge and its power by not sharing it with lay people. Concerns of this sort are attested to e.g. by colophons,<sup>41</sup> which sometimes explicitly term the content of the tablet a 'secret' (*nişirtu*).<sup>42</sup>

<sup>&</sup>lt;sup>38</sup> Hundreds if not thousands of examples could be given. A good one is Kolenkow in *Magic and Divination*, who uses the phrase 'persons of power' for magicians and diviners. More generally, see van Binsbergen and Wiggermann in *Mesopotamian Magic*, 11-15 on the conceptualization championed by Frazer of magic as a form of control.

<sup>&</sup>lt;sup>39</sup> E.g. in Zucconi, *JMC* 10 (2007) 20-22.

<sup>&</sup>lt;sup>40</sup> Schwemer in *Studies Singer*. Note the comment p. 313: the opening section 'places the patient in a protracted position of power from which he can start the ritual battle against his opponents'.

<sup>&</sup>lt;sup>41</sup> Finkel in *Studies Lambert*, 141 n. 111 and 189; Finkel in *Studies Sachs*, 149: lines 27'-28'.

<sup>&</sup>lt;sup>42</sup> For refs. see CAD N/ii 276b-277a.

More specifically, dynamics of knowledge and power are a way to understand mumbo-jumbo incantations. It has been suggested that these should be understood as being in the language of ghosts,<sup>43</sup> and the same idea could be extended to demons. However, exactly the opposite view is tenable: that, as speakers of Babylonian and Assyrian, the demons will hear the incantation and, not understanding it, be frightened by the realisation that the healer knows (or at least can use) a secret language which they are not privy to.

N. Veldhuis has likened mumbo-jumbo incantations to exotic *materia medica*, and indeed the latter to can (without excluding other interpretations) also be understood in terms of power. Expensive substances are evidence of the resources which the healer is able to muster in defence of the patient. They are a sign to the witches and demons that far-flung forces can be summoned against them, and that the patient has the means to curry favour with the gods. This is as true of 'pharmaceutical' prescriptions as of 'magical' rituals.

Returning to the link between power and knowledge, this can sometimes help us make sense of incantations. There are many incantations which contain descriptions of the 'enemy's' doings and/or origin (a sub-group of such 'descriptive' passages being aetiologies). Sometimes, indeed, such passages are all there is to the incantation, with no mention of opposing the 'enemy'. Consider for example the following incantation against dog bite:<sup>44</sup>

| urruk birk šu | It is long of knee,    |
|---------------|------------------------|
| aruh lasāmam  | quick at running,      |
| ș bubūtam     | short of sustenance,   |
| etnuš akalam  | poor in food.          |
| ina šinn šu   | From its teeth         |
| e'il n lšu    | hangs its semen.       |
| ašar iššuku   | Wherever it bit        |
| marāšu zib    | it left behind a child |

How is this incantation supposed to help victims, or potential victims, of dog bite? One might suppose that it should be understood as an extract from a longer incantation which contained mention of actually opposing the dog. But in this case comparison with a

<sup>&</sup>lt;sup>43</sup> Scurlock, *Ghosts*, 23.

<sup>&</sup>lt;sup>44</sup> After Whiting, ZA 75/2 (1985) 182, with minor changes to the translation, some of these being borrowed from the SEAL project (www.seal.uni-leipzig.de, no. 5.1.6.4).

very similar incantation shows that nothing is missing.<sup>45</sup> The same comparison suggests that the incantation above was to be recited while treating the wound, but, even so, it is not obvious what good simply stating the problem is supposed to do to the patient.<sup>46</sup> We miss a statement such as *kalbum limūt-ma aw lum liblut-ma* 'May the dog die, and the man live'.<sup>47</sup>

More generally, then, what is the purpose of these 'descriptive' passages (and indeed entire 'descriptive' incantations)? How should we understand them in terms of the overall purpose of the incantation (i.e. opposing and dispelling evil)?<sup>48</sup>

Naturally such broad and important questions are unlikely to warrant simple answers. Nonetheless, without excluding other possibilities,<sup>49</sup> it seems fair to suggest that a function served in general<sup>50</sup> by 'descriptive' passages is for the recitant to display knowledge of the evil to be opposed, and thereby to acquire a degree of control over it. This works especially well for aetiologies, as knowledge of how an entity came into being, or of its past history, is useful in plotting its downfall.<sup>51</sup>

<sup>&</sup>lt;sup>45</sup> Published by Finkel in *Mesopotamian Magic*, 215-216.

<sup>&</sup>lt;sup>46</sup> As observed by Finkel in *Mesopotamian Magic*, 213, someone bitten by a rabid dog was usually incurable. One might, then, wonder whether the incantation's non-therapeutic quality springs from the consciousness that not could be done for the patient. Against this idea, one can however object that a) if this were the case there would be little point in having incantations at all; b) incantations against dog bites with a more therapeutic aspect are attested, see the quotation *kalbum limūt-ma aw lum liblut-ma* above.

<sup>&</sup>lt;sup>47</sup> From another Old Babylonian dog incantation, Finkel in *Mesopotamian Magic*, 215.

<sup>&</sup>lt;sup>48</sup> For a survey of the purposes of Old Babylonian incantations and the evils they dispel see Cunningham, *Deliver Me from Evil*, 100-114.

<sup>&</sup>lt;sup>49</sup> Another interpretation is offered by Cunningham, *Deliver Me from Evil*, 106 apropos of an aetiological introduction to an Old Babylonian incantation against worms (his Text 373): 'an aetiological introduction which ..., as it were, gets to the root of the problem by identifying its origin'. Note also the comment by Schwemer in *Studies Singer*, 320 apropos of *Maqlû* I 39-40 ('Whatever you have done, I know, / (but) what I am going to do, you do not know'): 'The mirror-image structure that is so characteristic of anti-witchcraft rituals implies that knowing the ways by which the patient has been harmed is a prerequisite for adequately countering them: *scientia potentia est*. The patient has been empowered by the exorcist's professional diagnosis, but his sorcerers will be hit unaware'.

<sup>&</sup>lt;sup>50</sup> In specific cases, specific functions might arise. For example, as observed by Bottéro, *Mythes*, 283, the *historiola* at the start of the incantation against the toothache worm serves to remind the gods of 'un vieux ressentissement, une antique rancune, capable de les inciter à servir contre lui'. <sup>51</sup> Bottéro, *Mythes*, 280 suggests another general function for aetiologies (which *mutatis mutandis* 

<sup>&</sup>lt;sup>51</sup> Bottéro, *Mythes*, 280 suggests another general function for aetiologies (which *mutatis mutandis* might be applied to descriptive passages): they 'prétendent aider à mieux comprendre les données en les replaçant dans l'ordre génétique universel'. Veldhuis, *OLP* 24 (1993) 60 observes that the chain-like structure of aetiologies argues 'compelling logic of catenation' to present 'the alleged coherence of the world ... as a threat, so that no deity can remain uninvolved'.

#### 5. Gathering the threads

The corpus of Babylonian comic compositions is so small that any quantitative assessment made from it is risky. Accordingly, the high concentration of healers in comic compositions could well be the result of accident of preservation, and we do not propose to comment on it. Nonetheless, the way in which healers are deployed within comedy can be analysed with profit.

Examined in the light of other comic literatures, the Babylonian stories are studded with features that have ample cross-cultural parallels, and indeed cross-cultural parallels can, with due caution, be used to re-assess the stories. An example of this is the possibility that the healer's journey to Nippur to get his fee in *Ninurta-pāqidāt's Dog Bite* should be understood as demonstrating greed, a characteristic which comic doctors often possess.

A theme which unites the three compositions is the exercise of power, manifest in domination of one person by another. This is perfectly natural in comedy, and also for healers, who have power over the patient *ex officio*. We observed that power is absolutely central to Mesopotamian medicine, which is often (if not always) concerned with opposing and dispelling hostile forces, rendering Mesopotamian healers particularly suitable to comedies of power, in the roles of both dominator (*Poor Man of Nippur, Aluzinnu*) and dominee (*Ninurta-pāqidāt*).

We addressed several aspects of Mesopotamian healing whose significance a powerbased model can contribute to clarifying (mumbo-jumbo, exotic *materia medica*, seemingly innocuous incantations), and suggest that power will prove "good to think with" in future studies of the field.

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# Skin disease and the doctor Markam J. Geller

One might think that skin problems present an obvious reason to visit the doctor. For one thing, skin lesions are relatively easy to see and classify, since they do not require medical instruments or theoretical concepts of inaccessible internal anatomy, and they are very common. On the other hand, as any dermatologist will attest, skin problems can be notoriously difficult to treat, and even the most common afflictions such as eczema and psoriasis can cause major discomfort for patients and frustration for someone trying to treat them.

Perhaps this is why our earliest encounters with skin diseases occur within the contexts of incantations, and especially a group of mostly Akkadian incantations dating from the Old Babylonian period.<sup>1</sup> Many skin diseases, such as ašû, girgiššu, ekketu, sennitu, rišutu, and even garābu, are known from Old Babylonian incantations, and Wasserman described these incantations as 'between magic and medicine', but I would describe them somewhat differently. These Akkadian spells are quite different from the formal poetry of Sumerian incantations with their structured dialogues between healing gods deciding on the appropriate healing rituals for a patient The particular Old Babylonian incantations discussed by Wasserman focus attacked by demons. upon medical problems and as such may be considered as forerunners to later Akkadian therapeutic In any case, it is no coincidence that the one extant medical text which is analogous to medicine. these incantations is an Old Babylonian medical tablet from Jena (BAM 393), which lists various kinds of ailments with their natural causes, such as dog-bite or tooth-worm, and this particular medical tablet from Jena contains no magic or incantations (see Geller 2006 and Schwemer 2007: 27-28). This brief glimpse into the obscurity of the second millennium in Mesopotamia, afforded by these few incantations and one medical text, suggest that *āšipūtu* and *asûtu* were quite separate literary genres in the Old Babylonian period, probably reflecting very different roles of exorcists and doctors at the time. Nevertheless, the problems they attempted to solve were similar.

<sup>&</sup>lt;sup>1</sup> See Wasserman 2007 [Disease In Babylonia] 41f., basing his evidence mostly on Goetze 1955 (= JCS 9) and van Dijk 1985, as well as the bilingual incantation CT 4,3. For *simmu* incantations dealing with skin disease, see Geller and Wiggermann: 159-160, duplicating late Muššu'u incantations (cf. Böck 2007: 147ff., although noting some differences in readings).

The present known corpus of medical texts has few tablets specifically devoted to skin diseases, which may reflect the fact that there was relatively little a physician could do. This situation is not unique to Mesopotamia, of course. John Nunn has an astute comment on Egyptian medicine: 'the conspicuous nature of skin diseases and their common occurrence must have driven countless patients to seek the help of the *swnw*' (Nunn 1996: 94), the Egyptian equivalent to a doctor. Nunn wonders why skin disease recipes in Egyptian medicine are relatively sparse and uninformative.

We can also look to the Bible, which is generally a poor source for medical history, but it so happens with skin disease that we have to take its reporting seriously. The skin ailment *tsorat* is described in some detail, in terms of its white colour and being raised above the skin and itchy, but it can also mysteriously spread to clothing and walls of a house and hence appears to be highly contagious. There are several interesting points about biblical *tsorat*: 1) The priest had to make the diagnosis, much like the  $\bar{a} \cdot ipu$  in Mesopotamia who acted as diagnostician; there is no mention of a doctor at all. 2) The disease has no reported treatment except for quarantine, and

3) the disease has no recognisable modern counterpart. This last point is particularly significant: we should avoid trying to attach modern disease labels to ancient diseases, for a simple reason. If one rings up his family doctor one night to say that he is covered with reddish spots or blisters, and that the blisters emit fluid when scratched, and that this condition affects his eyes, I very much doubt whether the doctor will come up with a diagnosis of 'onchocerciasis', without even having a look at the patient. Diagnosing disease over millennia is a treacherous business, much more likely to be wrong than right, and actually does not tell us very much.

The most important Mesopotamian source by far dealing with skin disease is a Late Babylonian tablet from Uruk, with an unprovenanced British Museum duplicate, last published by Heeßel as Tablet 33 of the Diagnostic Handbook (Heeßel 2000). This tablet is an admirable example of academic medicine, and if we look closely at the text we can even see some attempts at classifying diseases, which in our case luckily turn out to be skin diseases. The important thing to note is that various symptoms are given under a heading of *simmu šikinšu*, 'the nature of a lesion', and after each brief description of a symptom, the text adds the Sumerogram MU.NI 'its name is', and the disease name is then given.

The first six lines of this tablet concern the disease  $a\check{s}\hat{u}$ , a disease characterised by reddish spots or blisters. Let's have a closer look at  $a\check{s}\hat{u}$ -disease as described in this tablet.

- 1 A1 [DIŠ GIG] GAR-šú GIM um-me-di a-šu-ú MU.N[I]
- 2 A2 [DIŠ GI]G GAR-šú GIM um-me-di i-raš-ši-šum-ma ug-gag IGI GIG A ŠUB [a-šu-ú MU.N[I]
- 3 A3 [DIŠ GI]G GAR-šú GIM um-me-di u È-su e-bíț SU-šu i-raš-ši-šum-ma EN 'x' [ ] 'x' TE GIG ug-dal-lab a-šu-ú MU.N[I]
- 4 A4 [DIŠ pa]-nu-šú u IGI.II-šú MÚ.MEŠ-ha di-ig-la ka-bit u DIRI a-šu-ú MU.N[I]
- 5 A5 [DIŠ pa]-nu-šú MÚ.MEŠ-hu di-gíl-šú ma-ți SU-šú bir-di ma-lu u ŠÀ-šú [D]AB-su a-šu-ú MU.NI
- 6 A6 [DIŠ] GIG GAR-*šú* GIM *ni-šik* uh ma *pa-gar-šú* SA₅ *a-šu-ú m*[*u-ta*]*p-ri-šu* MU.NI

The first line begins with a general observation, that the nature of this lesion is like ummedi; it would help to know exactly what this word means; Scurlock translates 'clusters', but I prefer to leave the question open. The second clause builds upon this with a further description: repeating what came before, it now adds that the patient itches and scratches, and the surface of the lesion produces fluid. Next, in addition to clause one (the general description) we see that its discharge 'changes' [I think from  $ew\hat{u}$ ] and he again itches. It is only in the fourth clause that the comparison with ummedu is abandoned in favour of two clauses highlighting loss of eyesight associated with this disease, although this time the patient is affected by a different kind of skin lesion, birdu. Finally, the patient's sores are irritating like lice bites, and this variation of the disease is called 'flying  $a \tilde{s} \hat{u}$ ', whatever that means. Bearing in mind the rudimentary instruments for diagnosis, since they could not even measure fever properly, Babylonian scholars are doing their best to make some order out of the chaos of diagnoses which had accumulated by the Persian and Hellenistic periods. But from our modern point of view, there is no real reason for us to categorise these descriptions in the same way that the ancients did, nor should we even try to copy their taxonomy. In other words, even though ancient physicians assigned the same disease name  $a \cdot \hat{u}$  to both skin lesions and diminished eyesight, these symptoms are likely to be associated with completely different clinical ailments that have no relation to each other in today's terms.

Let us look at one further example of skin problems in this same tablet.

| 19 | A19 | DIŠ GIG GAR-šú SA₅ BABBAR GU7-šú u A ú-[k]al ru-tib-tu4 MU.[NI] | ] |
|----|-----|---|---|
|----|-----|---|---|

- 20 A20 DIŠ GIG GAR-šú GE<sub>6</sub> ha-ra-şu MU.[NI]
- A21 DIŠ SU LÚ bir-di SA₅ UZU.MEŠ-šú ú-zaq-qa-t[u-š]ú u ri-šu-tu₄ ŠUB.ŠUB-su
   B1' [ r]i-šu-t[u₄ ]

```
      A21
      ha-ra-su M[U.NI]

      B1'
      [

      22
      A22

      DIŠ GIG ina GÌR LÚ lu ina ŠIR<sup>!</sup> LÚ E<sub>11</sub>-ma [i-ra]š-ši-šum-ma ug-gag ru-țib-tu<sub>4</sub>

      M[U.NI]

      B2'
      [

      1
      1'x' 'x' 'ma u[g-gag ]
```

We are dealing with descriptive disease names which can be associated with good Semitic roots, namely *rtwb* 'moist' and *hrş* 'scratch'. The descriptions are what we might expect, but with the interesting addition of *rišûtu*, which can be a symtom (as here), namely itchy skin. But Tablet 33 had already described *rišûtu* as the name of a disease characterised as looking like fish scales, red skin, fever, and even more interesting is that it has an *adannu* or 'critical period' referring to course of the disease over a specific period of time.

# 11A11[DIŠ GIG GA]R-šúGIM BAR KU<sub>6</sub> SU-šú SA5 u a-dan-na TUK ri-[šu-t]u<sub>4</sub> MU.NI12A12[DIŠ GIG GA]R-šúGIM TAB KÚM-ma 'x' 'x' GIG ri-[šu]-tu<sub>4</sub> MU.NI

Babylonian scholars were never successfully able to sort out their disease terminology, to be able to distinguish easily between symptom and disease. There can be no doubt, however, that an attempt is being made here to classify diseases, which is remarkable in itself.

Finally, we present below a copy of a therapeutic recipe from a private collection dealing specifically with skin diseases, for which no duplicates have been identified, partly because so few texts dealing with this genre of disease are known. The tablet itself is far from orthodox in its orthography, with some unusual phraseology and sign forms. The obverse is in a pretty sorry state, and the copy tries to recover as much as possible from traces remaining on the damaged surface. The reverse is in much better shape, and here we can find some diagnostic clauses: if his hand itches him and he scratches, and his skin is peeled off..., you then apply juniper and fat and other standard medicaments. A second diagnosis describes his skin as suffering from both birdi-pocks and rišûtu-dry skin, with the recipe calling for more standard material medica such as pulses and cedar oil. A third diagnosis gives both *rišûtu* and *rišiktu* together, probably as two different types of dry skin, and for this one has to heat material medica in an oven and afterwards bathe the patient. Nothing very remarkable here or any tips for modern pharmacology. Other diagnoses give us little information to go on: 'if a man's skin is peeled off', various standard medicaments are smeared on and the patient is to bathe and be anointed with warm oils, which are all what we might expect.

Although we do not learn very much from the diagnostic descriptions, it is obvious that these are the very same diseases being treated in Tablet 33 of the Diagnostic Handbook. As for other drugs prescribed, several recipes call for bark of trees, including oak and tamarisk, to be applied in a dry state, while other *material medica* are to be dried out before being applied. The emphasis on drying substances may reflect a common practice in ancient medicine, to try to counteract an ailment perceived as 'wet' with drugs perceived as being 'dry'. Another strategy used in this tablet was to rub the patient with various oils, which is to be expected. Less expected are some more exotic *materia medica*, such as latrine dust, wall plaster, or goose leg; many of the prescribed drugs were smeared into the skin as liquids and applied as bandages. As usual, the text optimistically reports that the patient may get better, but this can be treated with scepticism.

The question is whether any of this tells us anything about the doctor in Mesopotamia. The first problem, of course, is what we mean by doctor? It was the ka.pirig, a type of  $\bar{a}$ *šipu*, who was sent to the patient's house to give a prognosis, but the Diagnostic Handbook never refers to any connection with the family or knowledge of any family medical history, which could have been relevant to a diagnosis. It is always well worth bearing in mind that none of the entries of the Diagnostic Handbook refers to a single case history or single patient, but these are rather descriptions of diseases rather than patients. We do know that the ruling classes had plenty of access to physicians and exorcists, although for some reason (probably coincidental) members of the Assyrian royal court do not appear to have suffered from skin complaints. Nevertheless, the roles of Chief Exorcist and Chief Physician at the Assyrian Royal Court would come closest to what we are looking for in a personal physician.

However, there is a danger of imposing modern concepts onto a rather limited body of information, probably restricted to the upper crust of society who could afford the services of an  $\bar{a}$ *šipu* and *asû*. What did the common person think of doctors? We all laugh at the antics of the Poor Man of Nippur who disguised himself as an *asû* and mercilessly throttled the Mayor, while pretending to be a doctor. The sardonic humour is based on the idea that the physician is *supposed* to cause pain and discomfort. In fact, not everybody wants to have a doctor or wants to visit him, out of fear of what can result. This fear of the doctor is the very image that the Poor Man of Nippur story had in mind, but nothing of this is likely to appear in the standard medical literature.

# Obv. col. i

| 1' | [] <sup>r</sup> ì.nun mar.m[eš]   |
|----|---|
| 2' | []-rti <i>tur<sup>1</sup>-ár-ma ina-eš</i>  |
| 3' | [] x <sup>r</sup> šéš.šéš.me- <i>ma ina-eš</i>  |
| 4' | [] x <sup>r</sup> <i>id</i> <sup>1</sup> -ra I-niš súd <i>i+na</i> ì <sup>giš</sup> eren hi.hi ki.min |
| 5' | [] súd <i>i+na</i> ì <sup>giš</sup> eren hi.hi šu.bi.aš.àm  |
| 6' | [] a x luh- <sup>r</sup> si <sup>¬</sup> x ina kaš tara-bak šéš u lá.lá                               |

7'-15' [broken]

| 16'    | [] ti ik   |
|--------|--|
| 17'    | [] x ana zi-ih <sup>na4</sup> zu.lum.ma                  |
| 18'    | [] x [] <i>ina-eš</i>                                    |
| 19'    | [] x x [] <i>ina-eš</i>                                  |
| 20'    | [] x nu x x  |
| 21'    | [] x [] x súd ra.meš                                     |
| 22'-23 | traces   |
| 24'    | [] x a x x []  |
| 25'    | [diš k]i.min [] <sup>r</sup> a i x ka x súd <sup>1</sup> |
| 26'    | traces   |
| 27'    | [] <i>ina-eš</i>   |
| 28'-30 | traces   |
| 31'    | [] <i>ina</i> a gazi. <sup>r</sup> sar <sup>1</sup> []   |
| 32'-34 | ' traces   |
| 35'    | [h]i.hi su gim kal <sup>?</sup> []                       |
| 36'    | [] x x ta x x []   |
| 37'    | traces   |

# col. ii

1' x [......
 2' [diš] 'ki.min' [.....
 maš.sìla x x x x [.....
 igi *ù* maš.sìla lá-*i*[*t* .....

| 3'   | diš.ki.min ½ sìla <sup>šim</sup> gúr.gúr giš x [   |  |  |
|------|--|--|--|
|      | <sup>1</sup> / <sub>2</sub> sìla še x x 1- <i>niš</i> gaz s[im   |  |  |
| 4'   | [diš] <sup>r</sup> ki.min <sup>1</sup> maš.sìla še.bar <i>kiš-pu</i> x [   |  |  |
| 5'   | [diš] <sup>r</sup> ki.min <sup>1</sup> [ <sup>na4</sup> k]a. <sup>r</sup> gi <sup>1</sup> .na ì.u[du   |  |  |
| 6'   | [diš] <sup>r</sup> ki.min <sup>1</sup> ki ì.giš amar <sup>?</sup> .bíl.za.za <sup>2</sup> hád.du gaz <sup>r</sup> sim <sup>1</sup> [                                 |  |  |
| 7'   | <sup>r</sup> diš ki.min ì.udu <sup>1</sup> ti šéš kuš x [  |  |  |
| 8'   | <sup>r</sup> diš ki.min u <sub>5</sub> <sup>¬</sup> .gar.ib <sup>mušen</sup> <i>ina</i> ì <i>tu-šab-<sup>r</sup>šal</i> <sup>¬</sup> <sup>r</sup> šéš <sup>¬</sup> [ |  |  |
| 9'   | diš <sup>r</sup> ki.min ì šéš <sup>1</sup> -ma en [  |  |  |
| 10'  | diš <sup>r</sup> ki.min <sup>1</sup> i ur.mah š[éš   |  |  |
| 11'  | diš <sup>r</sup> na <i>di</i> - <sup>r</sup> <i>i</i> - <i>u</i> <sup>1</sup> min [  |  |  |
|      | x ù kaš <sup>r</sup> tara <sup>1</sup> -bak-ma [   |  |  |
|      | <i>ina</i> ì.giš <i>ù</i> kaš <i>tara-muk</i> šéš- <i>su</i> min ì []  |  |  |
|      | x x x x x x x x x <i>x it</i> []   |  |  |
|      | x x x <i>ù</i> <sup>?</sup> xx - <i>mi-šu ù</i> ì x  |  |  |
|      | ú [] <sup>r</sup> kaš <sup>1</sup> sur <i>ina</i> im.kal.ku <sub>7</sub> .ku <sub>7</sub> <i>tar-ha-ṣa</i>   |  |  |
|      | šu <i>ta-[k]ar raq-raq</i> <sup>r</sup> tur <sup>1</sup> .ra <i>ana</i> ì.giš  |  |  |
|      | šéš- <i>ma</i> a x x [   |  |  |
| 12'  | diš [n]a x x x x <sup>r</sup> šim <sup>1</sup> x ]   |  |  |
|      | <i>ù</i> a súd [ k]i ì.giš [   |  |  |
| 13'  | [] x ri ma [] x <sup>šim</sup> gam.m[a   |  |  |
|      | [] x ršćš-ma1 [  |  |  |
| 14'  | diš [ki.mi]n <sup>r</sup> ì <sup>1</sup> [] x x a <i>i-se-er</i> x [   |  |  |
| 15'  | [diš] k[i.min] x x ì.giš <sup>r</sup> ta <sup>1</sup> -[   |  |  |
|      | [] <i>ina</i> a i ga x [   |  |  |
| 16'  | [] x x x súd [   |  |  |
| 17'  | [ i]k da tuk [   |  |  |
| 18'  | [] la x x [  |  |  |
| 19'  | [] x x x [   |  |  |
| 20'  | [] <sup>ršim</sup> li <sup>1</sup> x [   |  |  |
| 21'- | end illegible  |  |  |

<sup>&</sup>lt;sup>2</sup> atam muṣa'irānu

#### Rev. col. iii

[i <sup>giš</sup>ere]n síg an[še .....] 1' [....]  $bir < da > sa_5 i - se - er - [ma] x [....]$ 2' 3' [.... s]úd *ina* ì hi.hi [.....] [diš] ki.min *qut-ra ša* im.šu.rin *i-se-er* [......] 4' diš na kuš-*šu i-ra-ši-šum-ma ug-gag u* x  $[...]^3$ 5' kuš-*šú iq-qal-lap*<sup>šim</sup>li ì.udu [......] diš ki.min <sup>ú</sup>tar-muš <sup>ú</sup>im-hur-aš-ra 1-niš súd [...... 6' diš ki.min numun <sup>giš</sup>šinig <sup>ú</sup>sikil numun ú.dili x [..... 7' *ina* ì  $\dot{u}$  ì.udu dug.útul šeg<sub>6</sub>-*šal* igi/<sup> $\Gamma$ </sup>ù<sup>1</sup></sup> [....</sup>diš ki.min<sup>na4</sup>peš<sub>4</sub>.anše *tur-ár a-na* igi gig m[ar ..... 8' 9' diš ki.min si-ra ša iz.zi ša hád.da ti-d[a .....] lá-*ma* [....] diš ki.min é nim *lab-bi-<sup>r</sup>ni* ì <sup>giš</sup>eren<sup>1</sup> [...] 10' diš ki.min <sup>šim</sup>gúr.gúr <sup>šim</sup>li *sah-lé-e ka-man-tú* [.....] 11' ana <sup>giš</sup>nàga *ina* ì <sup>giš</sup>eren hi.hi 3-*šú* x [.....] diš ki.min peš<sub>10</sub>-<sup>d</sup>íd <sup>šim</sup>li súd 12' šu.[bi.aš.àm] diš na kuš-*šu iq-qal-lap* <sup>ú</sup>nu.luh.ha <sup>ú</sup>ka-m[u-nu] 13' ina a i-se-er i-ra-muk ú.meš ina ì kúm [.....] diš ki.min <sup>ú</sup>eme.ur.gi<sub>7</sub> úkuš.hab *tur-ár* súd *in*[*a* ......] 14' diš ki.min ú babbar súd *a-na* igi gig m[ar<sup>?</sup> ......] 15' diš na kuš-šu <sup>r</sup>bir-di<sup>1</sup> im-ta-na-al-la u[zu.meš ....]<sup>4</sup> 16' *ù ri-šu-tu* šub.šub-*su* na bi [*ha-ra-su* gig] *a-na* ti.la-*šu* gú.gal gú.tur gú.[níg.àr.ra] 2 kisal ta.àm 1-*niš* súd *ina* ì <sup>giš</sup>e[ren ....] 17' diš ki.min útul.zì.da l[á .....] diš ki.min zì.kum *ina* a gazi<sup>sar</sup> *ta-lá-aš* x [.....] 18' diš ki.min <sup>šim</sup>šeš *ina* ì <sup>giš</sup>eren.hab <sup>[</sup>ì<sup>]</sup> [.....] 19' *a-na* igi gig  $[mar \dots]^5$ [diš] <sup>r</sup>na<sup>1</sup> x [.....] x x 20'

<sup>&</sup>lt;sup>3</sup> Heeßel 2000: 33: 2

<sup>&</sup>lt;sup>4</sup> BAM 409; cf Heeßel 2000: 33 5.

<sup>&</sup>lt;sup>5</sup> See parallels BAM 3 i 52, ii 6, BAM 152 17', BAM 34 10, BAM 42 66, AMT 17,1 5; AS 16 285:18.

ina ì.nun hi.hi kuš-šu ta-kar tu- x [.....]

- diš na *ri-šu-ta ù ri-ši-ik-tú* tuk-*m*[*a*...] 21' a im.šu.rin *te-sek-kir* tu<sub>5</sub>-*šu* [....]  $seg_6-sal$  tu<sub>5</sub>-su sim li [....] *ina* kašbir šeg<sub>6</sub>-*sal* t $[u_5]$ - $\tilde{s}[u$  .....] *tar-pa-su* egir-*nu* kašb[ir .... hád*-ma ir-ru-ú* gub.a [ ]
- 22' diš [ki.min .....

rev. col. iv

- [diš na ...] x  $^{r}i^{1}$  lu tag-ma a-na gig s[u nu.gíd.da<sup>6</sup> ......] 1' [... l]a sahar ki.mah *si-ra ša* i[z.zi .....] [anš]e.kur.ra 1-niš súd ina kaš tara-bak x [....]
- [diš na u]d.da<sup>?</sup> ha-mi-it<sup>7</sup> im.gú<sup>8</sup> ša ud.da<sup>9</sup> s[á.sá<sup>10</sup> gaz<sup>11</sup>]<sup>12</sup> 2' *ina* a gazi<sup>sar</sup> *tara-bak* x [.....]
- diš ki.min bar <sup>giš</sup>ù.suh<sub>5</sub> súd *ta-bi-la* [šub.šub-*ma ina-eš*] 3'
- diš ki.min bar <sup>giš</sup>al-la-ni súd ta-[bi-la šub.šub-ma ina-e]š 4'
- diš ki.min bar <sup>giš</sup>šinig súd *ta-[bi-la* šub.šub-*m]a ina-eš* 5'
- 6' diš ki.min šika gul-gul-li súd t[a-bi-la] šub.šub-ma ina-eš
- diš ki.min <sup>síg</sup>za.gìn *tur-ár* súd [*ta-b*]*i-la* šub.šub-*ma ina-eš* 7'
- 8' diš ki.min sú-pa-lam tur-ár [súd t]a-bi-la šub.šub-ma ina-eš
- [diš] na kúm diri numun <sup>giš</sup>ši[nig] súd *ina* ì šéš-*ma ina-eš* 9'
- diš ki.min ú.síg.za.gìn.na<sup>13</sup> s $[ig_7-s]u$  súd *ina* ì šéš-*ma ina-eš* 10'
- diš ki.min <sup>ú</sup>nínda súd *ina* ì šéš-*ma ina-eš* 11'
- 12' [diš ki.min] x <sup>r</sup>ki<sup>1</sup> [..] *mu-du-la* ga *ù* ì nag-ma *ina-eš*
- 13' [diš na .... g]ig pa *lis-sa-bit* diš <sup>r</sup>nu du<sub>8</sub>-ma ina-eš<sup>1</sup>
- [diš ki.min] x kúm lá.lá-ma<sup>1</sup> a-na <igi> ser-ri<sup>giš</sup>ig 14'

8 qadūti 9

- <sup>11</sup> tahaššal

<sup>&</sup>lt;sup>6</sup> BAM 416 rev. 6'

<sup>&</sup>lt;sup>7</sup> cf. Heeßel 2000: 33 15 (TAB KÚM)

<sup>&</sup>lt;sup>9</sup> şēta <sup>10</sup> kašdat

<sup>&</sup>lt;sup>12</sup> CAD O 53 citing AMT 78,7 7 (= BAM 584)

<sup>&</sup>lt;sup>13</sup> AHw šammi uq-na-a-ti (DAB 171), ú.za.gìn.na zerstösst du frisch (arqûssu) BAM 264 ii 19 ; s. RA 54, 176 Rs.8

7-šu u 7-šu tu-maš-ša-ah-šu-ma ina-eš

| 15' | [diš ki.m]in <i>hu-uṣ-ṣú ik-šu-su-ma</i> x tuk- <i>ši</i> gim <i>ṣi-de-ti</i> |
|-----|---|
|     | kúm- <i>ti</i> lá.lá- <i>ma ina-eš</i>  |

- 16' [diš] <sup>r</sup>na<sup>1</sup> [*h*]*i-mi-it <se>-tu i-na* ugu-*šu it-ta-bi-ik* <sup>r</sup>*zé*<sup>1</sup>*-er-di* hád.du súd *ina* ì.nun šéš *tu-kàṣ-ṣa-<sup>r</sup>šu-ma<sup>¬</sup> ina-[eš*]
- 17' [diš] ki.min <sup>ú</sup>hur.sag súd *tu-pa-şa ina* ì.giš *ni-kip-ti* hi.hi šéš-ma ina-eš
- [diš n]a tab *i-na* kuš-*šu* hád.du síg munus.áš.gàr nu.nu  $\langle ta \rangle$ -sá-hat<sup>14</sup> 3-šu 18' ina ugu gig tara-kàs-ma ina-eš
- [diš ki.min] 1 kisal <sup>ú</sup>ap-ru-ša 1 kisal zú.lum 1 kisal sahar a-sur-re-e 19' 1 kisal *tú-ra* am gu ra<sup>15</sup> téš.bi gaz luh-<sup>r</sup>si<sup>7</sup> ina ì ta-lá-aš lá-ma ina-eš
- 20' [diš ki.min] x x <sup>r</sup>tú sig<sub>7</sub>-su súd lá.lá<sup>1</sup>-ma ina-eš
- [diš ki.min] x *ina* a šeg<sub>6</sub>-*šal i-ra-muk-ma* <sup>d</sup>utu *mi-nu-ú an-nu-ú* 21' dug<sub>4</sub>.ga-ma ina-eš
- [diš ki.min]1 kisal <sup>ú</sup>tál.tál 1 kisal illu <sup>šim</sup>buluh *i-na* ì.sumun 22' lá-*id*

[...-t]i gìr.pad.du gíd.da ša kur.gi<sup>mušen</sup>

[....] x ti 1-niš súd lá-ma ina-eš

- [diš ki.min ..... ar-q]u-us-su lá.lá-ma ina-eš 23'
- 24' [diš ki.min .....] x x *ina* ì.nun hi.hi <*a-na>* igi gig x (traces)

<sup>&</sup>lt;sup>14</sup> 2-šu is erased. <sup>15</sup> error for am.ha.ra

#### TRANSLATION

- 1' You keep daubing [.....] with ghee.
- 2' You dry out [.....]... and it may get better.
- 3' You keek rubbing (it) with [.....] x x it may get better.
- 4' You crush together saltpetre ..., you mix (it) in cedar oil, ditto.
- 5' You crush [.....], you mix (it) in cedar oil, ditto.
- 6' You wash it in [.....] ..., you decoct it in beer, you rub it in and keep binding it

#### 7'-16' broken

- 17' [If a man suffers from ......], in order to remove it: date stones,
- 18' [.....], it may get better.
- 19' [.....], it may get better.
- 20' ..... 21' [.....] you crush it, you keep soaking it.

#### col. ii

| 2'  | If ditto [  |
|-----|---|
|     | the shoulder [  |
|     | bandage the face and shoulder [                                 |
| 3'  | If ditto, half a sila of kukru,[                                |
|     | grind and sieve half a sila ofbarley together, [                |
| 4'  | [If] ditto,   |
| 5'  | [If] ditto, [], fat, [  |
| 6'  | [If] ditto, dry out with oil 'frog-stone', grind and sieve it [ |
| 7'  | [If] ditto, take fat, rub (it in),                              |
| 8'  | If ditto, you anoint bat guano in oil [ and it may get better]  |
| 9'  | If ditto, you rub oil until [                                   |
| 10' | If ditto, you rub lion fat [                                    |
| 11' | If a man, headache ditto [ / you decoct it in and beer and [ /  |
|     | you soak it in oil and beer, rub it in, ditto, oil [            |
|     | / your wash in kalgukku   |
|     | you daub your hand and rub in stork-young into oil, juice of    |
| 12' | If a man / you crush [] and fluid, with oil [                   |
| 13' |   |

14' If ditto, .... he rubs body with medication

col. iii

- 1' cedar [oil], donkey hair [.....
- 2' he rubs medication on the red *blister* and ....
- 3' Crush ...., mix it in oil, [...
- 4' [If] ditto, he applies oven-soot [... he may get better].
- 5' If a man's skin is hot and makes him itch and ...and his skin peels, ... juniper and fat [and he may get better].
- 6' If ditto, crush together *tarmuš* and *imhurešra* [.... [note syllabic writing]
- 7' If ditto, you boil in a *diqāru*-bowl tamarisk-seed, *sikillu*, see of *ēdu*-plant, in oil and fat ...
- 8' If ditto, you dry out *bissūr atāni*-shell and daub the surface of the lesion ....
- 9' If ditto, bandage (him) with dried out wall-plaster, mud, [..... and he may get better].
- 10' If ditto, [....] fly and wasp nest, cedar oil.
- 11' If ditto, mix kukru, juniper, cress, kamantu, ..., into a pestle in cedar oil, 3 times ...
- 12' If ditto, crush sulphur and juniper, ditto.
- 13' If his skin peels, he applies *nukurtu* and *kamunu* in water, he soaks it and ... drugs in hot oil.
- 14' If ditto, you dry dog's tongue-plant, and cucumber, you crush it and in .....
- 15' If ditto, you crush 'white plant' and daub the surface of the lesion ....
- 16' If a man's skin is always filled with *birdu*-sores, his flesh ....
   and *rišūtu*-disease has always affected him, that man suffers from *harāsu*,

In order to cure him: crush together 2 kisal-measure each of peas, lentils and pulse in cedar oil [.. and he may get better].

- 17' If ditto, bind on a decoction ...
- 18' If ditto, knead *isqūqu*-meal in kasû-juice ....
- 19' If ditto, *murru* in smelly cedar oil, daub oil [....]into the surface of the legion [and it may get better].
- 20' If a man .....

you mix in ghee, you smear it on his hand, you ....

21' If a man has *rišūtu* and *rišiktu* and [....]
you heat up water in an oven, you wash it, [....
you boil it and wash it, you boil juniper [and ....]
in thin beer (*h qu*), you wash it ...,
dry out *tarpasu* and afterwards thin beer [....
and *planted cucumber* .....

22' If [ditto .....

rev. iv

 If a man], ... has affected (him), in order for the skin-disease not to be chronic, Crush together ..., dirt of the grave, wall plaster ...
 horse-[hair/urine<sup>?</sup>), dissolve it in beer ....

2' [If] a man burns with sun-fever, you crush up mud which *is exposed* to sunlight, and dissolve it in *kasû*-juice, ......

3' If ditto, crush bark of conifer (*ašūhu*), [keep applying] (it as) dried stuff (*tab lu*) [and it may get better].

4' If ditto, crush bark of acorn, [keep applying] (it as) dried stuff and it may get better.

5' If ditto, crush tamarisk bark, [keep applying] (it as) dried stuff and it may get better.

6' If ditto, crush pieces of skull, [keep applying] (it as) dried stuff and it may get better.

7' If ditto, you dry out woad, crush and keep applying (it as) dried stuff and it may get better.

8' If ditto, you dry out s.-juniper, [crush] and keep applying (it as) dried stuff and it may get better.

9' If a man is filled with fever, crush tamarisk-seed, rub him in oil and it may get better.

10' If ditto, crush woad-plant when it is fresh, rub him in oil and it may get better.

11' If ditto, crush *illūru*, rub him in oil and it may get better.

12' [If ditto], he will drink salted ..., milk, or oil, and it may get better.

13' [If a man ] suffers [....], ...., if not released, it may get better.

14' [If ditto], keep binding on hot ..., and you massage him 7 times 7 times down to the anus (lit. door-pivot), and it may get better.

- 15' If ditto, and stomach pains have overwhelmed him and youbind on him ... like hot *bandages* and it may get better.
- 16' If a man is overcome (lit. poured over) with sunlight-fever *in his brain*, crush dried olive-tree, rub it in in oil, cool it down and it may get better.
- 17' If ditto, you crush *azup ru*, you break it up, you mix *nikiptu* in oil, rub it in and it may get better.
- 18' If man is feverish in his body, twist the hair of a virgin kid, you *rinse* it three times, you bind it over the lesion and it may get better.
- 19'[If ditto], you crush together 1 kisal(-measure) aprušu, 1 kisal dates, 1 kisal<br/>latrine-dust, 1 kisal tūru, ..., (and) wash (them), you kneadthem in
- oil, bind them and it may get better.
- 20' If ditto, you crush, while still fresh ...., you keep binding it on and it may get better.
- 21' If ditto, you boil ... in water, he will bathe, saying, 'Šamaš, why is this?', and it may get better.
- [If ditto], 1 kisal *urānu*-plant, 1 kisal resin of *baluhhu*, you bind it in old oil,
  ... take the femur of a goose [...], crush them together, bind it on and it may get better.
- 23' [If ditto ......] while fresh, you keep binding it on and it may get better.
- 24' [If ditto, ......], mix ... in ghee, apply it to the surface of the lesion .....

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#### Advantages of Listening to Patients: The First Description of Parkinson's

#### JoAnn Scurlock, Elmhurst College

Historically, the dialectic of a body/mind divide between a thinking subject (the physician) and the unthinking object (his patient) has had disastrous consequences for the practice of medicine. Quite apart from the ethical issues raised (human experimentation and that sort of thing), the mind/body dialectic erects barriers of misunderstanding between observer and observed, even between the observer and the evidence of his own embodied senses. If unchecked, this distrust of the body creates a situation in which the patient's signs and symptoms and/or adverse reaction to treatment are denigrated or ignored, with no benefit to anyone.

We can see this trouble brewing already among Hippocratic physicians, who chafed at being classified as mere craftsmen and aspired to be philosophers. According to some treatises, a good doctor tells the patient what his symptoms are rather than the other way round. Really? A "good" prognosis is "he will die". Good for whom? The proof of the theory of the four humors is that patients who have been excessively purged vomit all four substances before they die. Yikes! And what about drilling a completely unnecessary hole in a patient's head, a procedure hailed on the history channel as the invention of brain surgery, and when the patient dies of meningitis as a result this "had nothing to do with the treatment". Ancient Greek physicians were no dummies, nor were they evil geniuses who delighted in killing patients, but if you cannot learn to trust what evidence you have, there is no way that you can draw correct conclusions from it. And, in medicine, an incorrect conclusion is all too often a dead patient.

Nowadays, in principle, doctors can get away with uncaring arrogance because they have lab tests. This is, however, a cruel illusion. Lab tests are expensive, not always accurate, and have to be ordered on the basis of what the doctor thinks might be wrong with the patient. We probably all know of cases where illnesses were misdiagnosed or worse yet not diagnosed at all due to a doctor's refusal to accept that mere bodies could possibly have any idea what was wrong with them. Worse yet, in some important areas, there simply is no test. This is the case with Parkinson's disease (PD to doctors).

"There are currently no blood or laboratory tests that have been proven to help in diagnosing PD. Therefore the diagnosis is based on medical history and a neurological examination. The disease can be difficult to diagnose accurately. The Unified Parkinson's Disease Rating Scale is the primary clinical tool used to assist in diagnosis and determine severity of PD. Indeed, only 75% of clinical diagnoses of PD are confirmed at autopsy. Early signs and symptoms of PD may sometimes be dismissed as the effects of normal aging. The physician may need to observe the person for some time until it is apparent that the symptoms are consistently present. Usually doctors look for shuffling of feet and lack of swing in the arms. Doctors may sometimes request brain scans or laboratory tests in order to rule out other diseases. However, CT and MRI brain scans of people with PD usually appear normal".<sup>1</sup>

The ability of doctors to recognize Parkinson's, then, is dependent upon their powers of observation and their willingness to trust the evidence of their own five senses as well as to listen to their patients. In principle, then, there is no reason that ancient Mesopotamian physicians could not have recognized Parkinson's, assuming of course that it existed at the time. Not only were they extremely careful observers with a firm sense of the difference between reality and illusion (they knew how to recognize pseudo-seizures), but they also interviewed their patients in the patient's own home, in an unrushed environment and with the opportunity of gleaning information from friends and relatives which the patient himself might have been unable to provide, more like the legendary old fashioned kindly family doctor than the arrogant rationalist know-it-all Dr. Frankenstein.

In fact, an examination of the Diagnostic and Prognostic Handbook reveals a quite striking description of what can only be Parkinson's disease. Patients with Parkinson's often have resting movement of the hands, a rigid mask-like face, rigid body, drooling, and when walking lean forward and move with a mincing rigid gait. Poor postural reflexes cause falls to be a common problem.

\*\*If his head trembles, his  $\lceil neck \rceil$  and his spine are bent, ... (one or two essentially illegible signs), his saliva continually flows from his mouth, his hands, his legs and his feet all tremble at once, (and) when he walks, he  $\lceil falls \rceil$  forward,  $\lceil (if) \rceil$  [...] he will not get well.

Immediately following this entry in the diagnostic/prognostic series is a sequence of entries which describe patients with similar tremors of the head, hands and feet but with speech problems of two sorts, difficulties in articulation ("mouth too strong for the words") and abnormal speech patterns ("words hinder each other in the mouth").

<sup>&</sup>lt;sup>1</sup> PMID 9923759.

\*\*If his head, his hands and his feet tremble, his mouth is (too) strong for the words (and) [they tumble over one another?] in [his] 'mouth,' the affliction afflicts him.<sup>2</sup> If his head, his hands and his feet all tremble at once (and) his words hinder each other in his mouth, [that person] 'has been fed' [a dirty substance to test it].

Parkinsons disease has recognized speech abnormalities including hypophonia and festinating speech. The former refers to a speech quality that is soft, hoarse, and monotonous. Some people with Parkinson's disease claim that their tongue is "heavy" or have cluttered speech.[2]. This would appear to be the  $\bar{a}sipu$ 's "the mouth is too strong for the words". Festinating speech means excessively rapid, soft, poorly-intelligible speech, or presumably what was described by the  $\bar{a}sipu$  as: "the words hinder each other/tumble over one another in his mouth". In short, this sequence of references is probably also describing a patient with Parkinsons. If our first entry had been a complete description—in other words if it had included the speech pathology of the subsequent entries alongside the characteristic tremor and shuffling gait, it would have been the first known complete description of Parkinson's.

It is a not uncommon practice for syndromes with variable signs and symptoms to be presented in separate but contiguous "sequenced" entries in the Diagnostic and Prognostic Handbook. It is also, however, not uncommon for two similar, yet different, syndromes to be listed in contiguous "contasted" references. Thus, the placing of descriptions of speech pathology next to descriptions of Parkinsonian tremor and shuffling gait tells us nothing about whether or not the  $\bar{a}$ *sipu* (as opposed to the modern observer) realized that the two syndromes were actually one. Their failure to appear together in the same entry does not prove they were separate syndromes for the  $\bar{a}$ *sipu*. However, absolute and definitive proof that there was one syndrome for the  $\bar{a}$ *sipu* requires all symptoms to appear together in one entry.

This proof is lacking, or it was until now. One of the great excitements of cunciform studies is the almost constant flood of new information. The excitement is not always pleasant, as old theories come tumbling down in the face of new evidence. In this case, however, it is a definitely a case of "Eureka". On my last trip to the British Museum, what did I discover among the Babylon texts in the collection but a new copy of this section of DPS which allows us now to restore the first reference as follows:

 $<sup>^2</sup>$  The term "affliction" is used in medical texts in a general sense of whatever is wrong with somebody—just about any disease or condition may be said to "afflict" a patient. In this context, the "affliction" is clearly the condition which has just been described.

"If his head trembles, his 'neck' and his spine are bent, he cannot raise his mouth to the words, his saliva continually flows from his mouth, his hands, his legs and his feet all tremble at once, (and) when he walks, he 'falls' forward, '(if)' [...] he will not get well" (DPS III C obv. 39-40gD 13-15 = TDP 22:39-40)

The old record holder for a complete description of Parkinson's is Mr. Parkinson himself who left a description of "shaking palsy" without treatment (none was then known) in  $1817.^3$  Even taking the latest possible date for this section of the Diagnostic and Prognostic series, this would place the  $\bar{a}sipu$  in advance of his Western counterpart on this issue by 2,000 years, a chilling warning as to the damage that can be done by pitting the mind of the physician against his own body and the body of his patient

<sup>&</sup>lt;sup>3</sup> PMID 11983801.

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