

Le Journal des Médecines

2018 n°32



Cunéiformes

- Page 1 ‘Seize a frog!’ The use of the frog
in medical and magical texts
András Bácskay
- Page 17 Vaches d’Ur
Baptiste Fiette
- Page 24 Éléments de pharmacopée mésopotamienne :
retour sur l’ingrédient rikibtu
Vérène Chalendar
- Page 56 Two rituals to postpone an ill-omened childbirth:
an edition of KAR 223 and duplicates
Henry Stadhouders, Ulrike Steinert

‘Seize a frog!’ The use of the frog in medical and magical texts

András Bácskay¹

Abstract

The frog belongs to a group of animals that were used as a substitute as well as healing material for remedies in Mesopotamian medical and magical texts. This paper provides an overview of the references including some unpublished texts and an analysis which focuses on the context of treatments using various types of frogs or healing materials relating to the frog (e.g. ‘frog bile’ or ‘frog skin’), and to the symbolism pertaining to this animal. Besides, summarizing the references related to the frog, this paper attempts to provide an interpretation related to the specific animal substances used in the Mesopotamian medicine.

Résumé

La grenouille appartient à un groupe d’animaux qui étaient utilisés selon les textes médicaux et magiques mésopotamiens à la fois comme substitut et comme ingrédient thérapeutique. Cet article passe en revue les différents textes concernés, certains encore non édités et analyse les traitements utilisant diverses sortes de grenouilles ou divers ingrédients tirés de la grenouille (par ex. la ‘bile de grenouille’ ou la ‘peau de grenouille’) tout en tenant compte du symbolisme lié à cet animal. D’autre part, en reprenant les références traitant de la grenouille, cet article essaie de donner une interprétation quant à l’utilisation de certaines substances d’origine animale en médecine mésopotamienne.

Keywords: frog, magic, medicine, namburbi, substitute, therapeutic.

Introduction

Frogs belonged to the everyday fauna in ancient Mesopotamia,² but some supernatural conceptions are also connected to this animal. Amulets in the shape of frogs are one of the most common objects among the animal-shaped amulets used as a bead from the third millennium.³ Moreover, frogs were applied as a substitute in namburbi rituals and the animal or its body parts were used as healing materials in medical treatments. Our paper deals with the medical and magical use of the frog or it focuses more precisely on the analysis of all treatments which use the frog as a substitute animal or as an ingredient of the healing material for various medicines.⁴ The number of the cuneiform texts mentioning the frog as a substitute or healing material are not too many. The total number of the medical and magical texts, known to me, pertaining to various types of frogs, amount to around forty. The vast majority of these references have to do with therapeutic treatments and just four texts describe substitute rituals. The first references to the frog as a healing material originate from the Old-Babylonian period but the majority of the references originate from the Neo-Assyrian and Neo-Babylonian period.⁵

The most often used lexeme provided for the frog is *bīl-za-za* = *muša’irānu* in these texts and in several references it has been complemented with the adjective ‘green’ (always written with the logogram SIG7); furthermore some treatments use the ‘tadpole of the frog’ (*atmu ša*

¹ PPKE Budapest. I am greatly indebted to Gilles Buisson and Krisztián Simkó for their corrections and suggestions, but the responsibility for all remaining errors is mine.

² For the Mesopotamian fauna, see Landsberger 1934, Landsberger 1960, Landsberger 1962 and recently Streck 2014. For the animal substances in Mesopotamian medical texts, see Herrero 1984, 58 and Böck 2011, 696-697. For the terms related to the frog, see lines 376-381 in the 14th tablet of the canonical *Ur₅-ra* (edited by Landsberger 1962, 41).

³ Moorey 1994, 175 with references.

⁴ For the relevant texts, see CAD M/2 p. 241 sub *muša’irānu* cf. Ebeling 1957-1971.

⁵ I know only two OB medical texts (YOS 11 no. 4 obv. 1-10 and BM 113935 obv. ii 9), both of them will be discussed in this paper.

muša'irāni) as a healing material.⁶ Besides the term *muša'irānu*, some prescriptions mention another type of frog: namely the so called *dālilu*. In the medical prescriptions this animal is always designated with the same specific term: 'dālilu that lives amidst the pebbles'.⁷ My interpretation is that this term can be interpreted as a type of frog or an aquatic animal which was categorized by Mesopotamians similarly to the frog and is based on the therapeutic prescription attested in BAM 264 ii 15'-16 which contains the same term using the common term *muša'irānu* instead of *dālilu* (BIL.ZA.ZA ša ŠÀ^{na4}PEŠ.ÍD = a frog that lives amidst the pebbles of the river). Finally, it should be mentioned that the Sumerian term *kin-tur*^{ku6} (perhaps toad) can be attested in a single medical prescription against ghost (BAM 470 iv 16'-17').⁸

Frog as substitute

Only two texts can be without question identified as a namburbi ritual related to the use of frogs. The texts are cited in the followings as follows.⁹

- 1' [...]x x x' [...]
 2' [...] a-mi-lu [...]
 3' [x?]'x' ru-gu-u[m ...]
 4' šá at-ta te-pu-šá 'x' [...]
 5' ina qí-bit^dé-a^dUTU u^rd^d[...]¹⁰
 6' mu-úh-ra-an-'ni' [...]
 7' mur-ši a-nam-d[i-in ...]
 8' ul-tu at-ta tab-tal-í[ú ...]¹¹
 9' ina u₄-me-šú-ma mur-š[i ...]

-
- 10' KA.INIM.MA NA[M.BÚR.BI HUL[?] ...]
 11' KÌD.KÌD.BI BIL.ZA.ZA SIG₇.SI[G₇ tašabbat[?] ...]
 12' ÉN ana UGU ŠID-nu e-ma ŠID [...]
 13' KI^{giš-}úGÍR KEŠDA-su-m[a...]

¹[...] ... [...] ²[...] a man [...] ³[...] claim? [...] ⁴which you did ... [...] ⁵By the command of Ea, Utu and [Asalluhi? ...] ⁶accept ... [...] ⁷I give my sickness [...] ⁸ when you let (the frog) back (into the water?) [...] ⁹ on that day [my] sickness [will disappear? ...]

¹⁰Nam[burbi] incantation against [the evil frog?] ¹¹Its ritual: [you catch] a green frog [...] ¹²You recite the incantation onto (it), whenever you recite (the incantation) [...] ¹³you tie it on *āšagu* thorn and [...]
 (Sm 1049 obv. 1'-13')¹²

1. [NAM.BÚR.B]I HUL BIL.ZA.ZA [...]
 2. [... a-n]a NA u É-šú N[U[?] TE[?]]

-
3. [DÚ[?].DÚ[?].B]I '2' NU[?]. [MEŠ ...] '1[?] šá KÙ.BABBAR 1-en 'šá[?] [KÙ.SI₂₂ teppus[?]]¹³

⁶ From references collected by my research 27 texts use the term *muša'irānu* (mainly written with the Sumerian logogram bil-za-za or bil-za-za) and only three prescriptions include the term *dālilu*. Furthermore, four prescriptions mention the term 'tadpole of the frog' (*atmu ša muša'irāni*).

⁷ The CAD identified the term as 'a small animal, probably frog' (CAD D p. 52 sub *dālilu*). For the summary of various interpretations, see Volk 1995, 57 footnote no. 379 and George 2003, 838 note no. 76.

⁸ The prescription was edited by Scurlock 2006, 614 (no. 297).

⁹ The frog as carrier of harmful omens was also mentioned by Maul without any reference to the relevant tablets (Maul 1994, 12).

¹⁰ Caplice: [^dAsar-lú-hi ...]

¹¹ Caplice: tab-tal-í[á? ...]

¹² For the hand copy of the tablet, see Geers Heft B 137. The text was edited by Caplice 1971, 175. Scurlock also referred to this text (2002, 373 note no. 30).

¹³ The restoration of this line is based on a similar passage in another namburbi texts: K 9789+79-7-8, 115 obv. 18' (edited by Maul 1994, 211) and LKA 123 rev. 9' (edited by Maul 1994, 286).

4. *ina* GÚ ÍD *t[a- ...]* x¹⁴ KEŠDA *ana* IGI ^d[UTU *u* ^dAsallu^{hi} *tarakkas*² ...]
 5. ^{udu}SÍSKUR BAL-^rqí^r ^{uzu}ZAG ^{uzu}[ME].^rHÉ^r [^{uzu}KA.NE *ina* UGU *tašakkan*²]¹⁵
 6. ZÚ.LUM.MA ^rzi^r[E]^rŠ^r[A *tasarraq*²]
 7. NINDA.Ì.DÉ.^rÀM¹⁶ [*dišpi*² *himēti*² *tašakkan*²]¹⁷
 8. NÍG.NA ^{sim}LI GAR [...]

9. én ^dEn-ki lugal ^rabzu^r [...]
 10. hé-gál Eridu^{ki}-ga ^rx^r [...]
 11. [x?] abzu-ta de [...]
 12. [...]^rx^r hul a [...]
 13. [... e]n ^dEn-ki [...]

¹[Namburb]i incantation that the evil frog [...] ²[may] no[t approach t]o the man and his house ³[Its ritual:] you [...] in the bank of the river, [you set up] the ritual arrangement in front of [Shamas and Asalluhi ...] ³you make an offering, [bring near] shoulder flesh, fatty tissue [...] ⁴[you scatter] dates (and) *sasqu* flour [...] ⁷*mersu* cake [...] ⁸you set out a censer (burning) *burāšu* juniper [...]
⁹Incantation. Enki, the ruler of the underground water [...] ¹⁰plenty of Eridu [...] ¹¹[...] from the underground water [...] ¹²[...] evil? ... [...] ¹³[... the lo]rd?, Enki [...]
 (LKA 118 obv. 1-13)¹⁸

The first text includes an Akkadian incantation and the second text contains a Sumerian incantation, but I did not find any parallels to them. The ritual of the first text perhaps uses a frog as a substitute for the patient and a similar ritual can also be found in medical texts which I will discuss later in this paper. The ritual in the second text follows the general pattern of the namburbi ritual: this ritual includes making offerings, libation and fumigation with a censer for the gods. Besides these two namburbi rituals two further medical prescriptions describe a healing ritual which use a live frog as a substitute for the patient. The most detailed process can be found in a treatment against *li'bu* diseases.

¹If a man becomes dark from his feet to his shoulder blades, this man has been seized by *li'bu* of the mountain.
²Its ritual: you catch a green frog in the water, ³wipe him ²in the morning, ¹⁹ in his bed, ³even before he (i.e. the patient) places his feet on the ground, clean from his head to his feet ⁴and speak as follows: “Frog, you shall undo the seizure, which has seized me! ⁵Frog, (you shall undo) the *li'bu* disease which has seized me, ⁶when you stay alive and return into your water!” ⁷On that day when you let (the frog) back (into the water), you should say (this incantation) three times. [Wh]en you have dropped his spittle into its (i.e. the frog's) mouth three times, ⁸take it into the steppe, knot its feet with a yarn of red and white wool, ⁹tie it on a *baltu* thorn and that man will recover.
 (K 2581 obv. 20-25 // K 6732 + 79-7-8, 202(AMT 53,7): 1-9)²⁰

As JoAnn Scurlock observed earlier, the aim of this ritual is to transfer the patient's illness to the animal substitute.²¹ After the transfer of the illness the frog was delivered into the steppe, red and white wool yarn were knotted on its feet and finally, based on the text of the incantation,

¹⁴ The first fragmentary sign *t[a- ...]* allows to have a syllabic verbal form: a possibility is that the verb is *šakānu* (*t[a-ša-ka-a]n*) but the use of this verb in this context with such a syllabic form seems not convincing to me.

¹⁵ The reconstruction is based on a similar passage in another namburbi texts: BM 94354+BM 94356 obv. 8 and its parallels edited by Maul 1994 133 line 79. Cf. Maul 1994, 55 note no. 129.

¹⁶ I followed the reconstruction of CAD M/2 109 sub *mirsu* but another reconstruction also can be suggested: NINDA.Ì.DÉ.A *tara* ^r-[*kás*...] which occurs in an *izišubbū* namburbi ritual edited by Maul 1994, 133.

¹⁷ The restoration of this line is based on a similar passage in another namburbi text BM 45948 obv. 9 and its parallel K 12197 line 6'-7' edited by Maul 1994, 325.

¹⁸ The text was identified as ‘ein besonderes Ritual (nam-burbi)’ by Ebeling 1957-1971, Maul 1994, 520 and Maul – Strauß 2011, 6.

¹⁹ Variant in K 2581: on that day (when) he seized him (i.e. the frog).

²⁰ Scurlock 2002, 373 note no. 30; Scurlock 2014, 676 and 678 and recently Bácskay 2018, 158-159. The script of the tablet K 2581 is Babylonian and it can be supposed that this ritual – similarly to another ritual identified on cuneiform tablets from Nineveh – originates from Babylonia.

²¹ Scurlock 2002, 371-387

the animal was released and the frog returned to the water.²² Although any duplicate to this substitute ritual is not known to me, a similar method can be identified in the namburbi ritual discussed in the first text (Sm 1049 obv. 10'-13'). Similar procedures can be found in a further medical tablet which contains a list of healing rituals and therapeutic prescriptions against unidentified diseases. I present below the relevant lines of the text.

14. [...] *-ma* NU DU₈-ár 7 ninda DÌM.ME 7 ninda *ha-si-ša-a-ti*

15. [...] ⁿur-ri-qá ana ÍD ŠUB-di

16. [...] 'x' BIL.ZA.ZA SIG₇ TI-qí ana IGI ÍD UR₅.GIM DUG₄.GA

17. [...] 'x' DUR sig HÉ.ME.DA SIG.BABBAR *ta-tam*-[mi?]

18. [...] NA BI *ul is-sà-har-ma ul* 'x' [x x x?]

¹⁴[... illness has seized him] and you cannot release (it). Seven (pieces) of *pannigu*-bread, seven (pieces) of *hasísātu*-bread, ¹⁵[...] *urrīqu*-stone you throw (them) into the river.

¹⁶[...] you take a green frog (and) say as follows in front of the river ¹⁷[...] ... you wrap it into a yarn of red and white wool. ¹⁸[...] this man will be not turn back and not [...].

(K 3395 (AMT 88, 2) obv. 14-18)²³

The fragmentary preserved text contains two different methods. In the first one, various types of bread and probably a specific stone should be thrown into the river.²⁴ Another procedure seems to be a substitute ritual using a green frog. The incantation was recited directly next to the river and we suppose that the frog will be released into the river.

Two important steps of the substitute ritual with a frog attested in the aforementioned medical prescription (to spittle into the mouth of the animal and to release the animal into the river) can be also found in further substitute rituals. As the closest parallel, a purification ritual can be mentioned which is applied on the first day on the month Nisannu (BAM 318 iv 19-21 // K 10622 rev. 1-2).²⁵ In this instance, I present only the relevant part of the text; a quote from the recent English translation of Daniel Schwemer.

¹⁹[Yo]u catch [a fish] (and) keep hold (of it); then you put your spittle in the mouth of the fish. ²⁰["fish], undo my [c]urse, fish, carry off my sin, ²¹take it down [to the sub]terranean ocean!"²⁶

The way in which the transfer is made in this text is similar to the frog ritual mentioned above. The text clearly defines the aim of the method: the substitute animal delivers the patient's sin into the *Apsû* in order to eliminate it. Something which is noteworthy: the use of fish as a carrier of illness into the *Apsû* can be found in another medical and magical prescription which contains a treatment against urinary problems.

Seize a live *girītu* fish, (the patient) urinates into its mouth. He/you²⁷ releases/release it into the river and he will recover.

(BAM 396 iv 22-23)²⁸

²² Cf. Scurlock 2014, 675.

²³ The text was also discussed by Chalendar (Chalendar 2016, 98).

²⁴ This ritual is similar to the namburbi for the purification of the field and garden wherein same types of bread and *mersu* cookies as well as an *urigallu* standard were thrown into the river (Maul 1994, 370:25 and 372).

²⁵ Maul 1994, 77:57. For the edition of the ritual, see Livingstone 1998, 62, Scurlock 2002, 374 and recently Schwemer 2013, 189, 193 and 198. Livingstone identified a Late Babylonian version of this hemerological ritual which was performed in the month of Nisannu (Livingstone 1993, 106-107). Similar purification rituals can be found in another medical text BAM 409 rev. 13-14 (edited by Köcher 1995, 207 and 210).

²⁶ Schwemer 2013, 193.

²⁷ Geller translated 'you' suggesting that this activity was made by the incantation priest. Contrary to Geller, Scurlock assumed that the agent actively participating is the patient and she translated this into a 'he'.

²⁸ The prescription was elaborated by Geller (Geller 2005, 40-41) and recently by Scurlock (Scurlock 2014, 545-546).

The use of a specific and rarely mentioned type of fish (*girītu*) can probably be explained by the fact that the cuneiform sign /bir/ attested in one of its Sumerian logogram (bir-dùn-na)²⁹ can be read as the Sumerian ellag₂ (means kidney) which is relevant to the topic of the prescription. Thus, it can be supposed that the applied healing material is based on the association between the similar cuneiform signs in the name of the fish and the human organ which is connected to the disease. Unfortunately, I do not know any similar method for the use of frogs.

Finally, I would like to present a fragmentary ritual using a live frog. The small fragment is written in Neo-Assyrian ductus originating from Nineveh and containing a collection of incantations and connected rituals. Here I present the edition of the incantation and the connected ritual related to the frog.

1' x x x' [...]

2' ÉN KAR ZI 'x' [...]

3' KAR ZI ma aš ku iš t[i² ...]

4' le-qé-e qí-iš-t[i ...]

5' KA.INIM.MA [...]

6' KÌD.KÌD.BI BIL.ZA.ZA T[I DAB² ...]

7' SA.MUD BIL.ZA.ZA šá GÙB [...]

8' 'x' [...]

broken

1' ... [...]

2' Incantation (for) saving of the life ... [...] 3' saving of life ... [...] 4' Accept a gift! [...]

5' Incantation against [...]

6' It is its rituel. You [catch?] a live frog [...] 7' the tendon from the left foot of the frog [...]

(K 11705 obv. 1'-7')³⁰

Due to the poor condition of the text and having no knowledge of any parallel, I cannot reconstruct the text. This is the reason for which the interpretation of the incipit of the incantation ÉN KAR ZI as 'Incantation (for) saving of the life' is quite hypothetical. The ritual clearly refers to the use of a living frog, more precisely the use of 'the tendon from the left foot of the frog' but the method of the treatment remains unclear to me.

Frog as healing material

Formally, the references using the frog as healing material can be separated into two different groups. One part of them consists of treatments that mention the living animal and another part of the references includes liquids or body parts related to the frog.

²⁹ N 429 line 6 (a cuneiform tablet housed in the tablet collection of Istanbul Archeological Museum, edited by Scheil 1916, 135-137). The fragment belongs to the manuscripts of the canonical lexical list Izi. Notable, another manuscript of this line includes another Sumerian logogram of the fish: mur-dùn-na (CT 19, 5 ii line 7; for the edition of this text, see Izi J ii line 9 in MSL XIII p. 212).

³⁰ For the hand copy of the tablet, see Geers Heft A 129.

Living frog as a drug

The majority of the prescriptions using a living animal as a drug are described with specific terms: ‘*dālilu* frog which (lives) amidst the pebbles’ or ‘frog which lives amidst the pebbles.’³¹ Here, I present the relevant prescriptions.

30’ DIŠ KIMIN <Ú>.BIL.LÁ ^ú*ur-ba-te* SIM *ina* A GAZI^{sar} *ta-là-ás* ‘x’ [...]

31’ *da-li-la ša ŠÀ* PEŠ₄.<ÍD>.DA *ina* Ì.GIŠ SÚD IGI^{II}-[šú ...]

³⁰If ditto, you sieve charcoal of *urbatu*-plant, knead (it) in *kasû* juice ... [...] ³¹you pulverize the *dālilu* frog which (lives) amidst the pebbles (of the river) in oil [... his] eyes.
(BAM 12 rev. 30’-31’) ³²

A_i 17 DIŠ NA *su-a-lum* DAB-*su da-li-la ša ŠÀ* ^{na4}PEŠ₄

B_i 17 DIŠ NA *su-a-lum* DAB-*su da-li-la* [...]

A_i 18 *tur-ár ta-sàk ina* Ì *ḫal-ši* NAG-*ma* TI

B_i 18 *tur-ár ta-sàk ina* Ì *ḫal-ši* [...]

¹⁷If a man has been seized by *suālu* disease, ¹⁸you dry ¹⁷*dālilu* frog which (lives) amidst the pebbles (of the river), ¹⁸pulverize (it) in filtered oil, he drink (it) and he will live.

(A = AMT 80, 1 i 17-18 // B = BAM 548 i 17-18)³³

15’ DIŠ KIMIN BIL.ZA.ZA *ša ŠÀ* ^{na4}PEŠ₄.ÍD *i-ba-a*[*l-lu²-u²*]³⁴

16’ ‘*šá*’ *di-i-ki-^rti-^ršú tur-ár ta-sàk ta-za*-[*ru²*]

¹⁵If ditto, a frog which liv[es] amidst the pebbles of the river, ¹⁶You dry (the frog) which was killed, pound (and) scatter (it on the sick body part).

(BAM 264 (KAR 204) ii 15’-16’) ³⁵

14’ DIŠ MIN(= DIŠ GIG-*ma* KÚM ŠUB.‘ŠUB-*su*’-*ma ú-ta-šal u* ‘ÚḪ’ NU ‘TUKU’)-*ma* IR *la-ba-ši ma-at-tam* TUKU.TUKU^š

15’ *u hur-ba-šu* ŠUB.ŠUB-*su* ŠU DINGIR *aš-ti*

16’ ^dALAD *šá-né-e^dé-a ana ina* ŠU DINGIR *aš-ti* ‘KAR’-*šú*

17’ Ì.UDU *a-a-ar* DINGIR *da-li-la šá ŠÀ* ^{na4}PEŠ₄

18’ *tur-ár* ^{gis}ŠINIG ESIR.U₄.A PEŠ₁₀.^dÍD

19’ ‘*ru¹-ti-^ditu⁵* MUN *eme-sal-^rlim*’ *ina* GÚ-*šú* GAR

20’ *u* ^ú*am-ḫa-ra* ŠÉŠ.MEŠ-*su-ma* TI

¹⁴(If) ditto (=If he is ill and he has constantly heat and becomes paralysed, but he has no saliva) and he excessively transpires the sweat caused by the Labāšu-demon ¹⁵and in addition he experiences recurrent attacks of feverish shivering: Hand of the stiff deity, ¹⁶deputy power of Ea. In order to release him from the Hand of the stiff deity, ¹⁸you dry ¹⁷a chameleon's fat and a *dālilu*-frog that lives amidst the pebbles. ¹⁹You put (them along with) ¹⁸tamarisk, asphalt, black sulphur, ¹⁹yellow sulphur, and *emēsallu*-salt around his neck; ²⁰finally, you repeatedly rub him with *amhara*-plant and he will recover.

(CTN 4, 72 iii’ 14’-20’) ³⁶

It can be observed that three prescriptions use the frog ‘which (lives) amidst the pebbles’ as a *simplicium* and only a single prescription contains more healing material. The animal will be dried and pulverized or pounded in all prescriptions but the ways in which the application of such treatments will be applied greatly differ: salve, potion and scatter. The four texts represent four different diseases: eye complaints (BAM 12 rev. 30’-31’), respiratory problems (AMT

³¹ Heeßel translated the term *da-li-la ša ŠÀ* ^{na4}PEŠ₄ as ‘*dālilu*-Frosch, der inmitten der Muscheln (lebt)’ (Heeßel 2011,61) but based on the further reference of this term, his interpretation seems incorrect.

³² For the partial edition of the tablet, see Worthington 2006 as Ms.E. Edition of the relevant prescription remains unknown to me. For the transliteration of the prescription, see the corpora of BabMed.

³³ No edition is known to me. For the transliteration of the prescription, see the corpora of BabMed.

³⁴ The transliteration of BabMed (*i-ba-^raš²* [...]) is not convincing for me because the head of a parallel horizontal or may be a slant sign is also preserved on the tablet which is missing in Köcher’s hand copy.

³⁵ No edition is known to me. For the transliteration of the prescription, see the corpora of BabMed.

³⁶ I followed the edition of Stadhouders with minimal corrections (Stadhouders 2012, GKAB, <http://oracc.org/cams/gkab/P363487>).

80,1 i 17-18 // BAM 548 i 17-18), skin problems (BAM 264 ii 15'-16') and various sufferings caused by Hand of the stiff deity (CTN 4, 72 iii 14'-20').

Another group of therapeutic treatments use 'a tadpole of the frog' (*atmu ša muša'irānu*) as a healing material. The relevant prescriptions are cited in the followings.

A_{obv.14'} DIŠ KI.MIN ^uKUR.KUR *at-ma* BIL.ZA.ZA SIG₇ ^{giš}ḪAŠḪUR GIŠ.GI
 B_{ii16'-17'} [.....]KUR.KUR ^r*at'-ma* BIL.ZA.ZA [...] / [.....]
 C_{rev.23'-24a'} [..... *a*]t-ma BIL.[ZA.ZA] / [.....] GIŠ.GI

A_{obv.15'} *ina* Ì.GIŠ ^{giš}EREN EŠ.MEŠ-su NA BI EN TI.LA
 B_{ii17'} [..... ER]JEN EŠ.M[EŠ]
 C_{rev.24b'} *ina* Ì.GIŠ [.....]
 A_{obv.16'} ^rŠÀ-šú ÌL-šú *kiš-pi* NU TE-šú

B broken

If ditto, *atāišu*-plant, tadpole of green frog, *hašhūru*-apple tree, reed (mixed) in cedar oil. You rub him repeatedly (and) this man will have potency as long as he lives. Witchcraft will not come near him.

(A BAM 205 obv. 14'-16' // B = 81-7-27, 73 (Biggs 1967, pl. 2) ii 16'-17' // BAM 320 rev. 23'-24')³⁷

2' DIŠ NA SAG ŠÀ-šú [...]
 3' *mim-ma* GU₇ u NA[G ...]
 4' ^rx' MU DINGIR-šú ^rkur^{2'} [...]
 5' [*ana*³ *e*²-*f*]^{e12}-*ri-šú* ^rú^{3'} [...]
 6' [...] ^rx x ^r [...]
 7' [*at-m*]*a šá* BIL.ZA.ZA SIG₇ [...]
 8' ^{giš}ḪAŠḪUR GIŠ.GI TĒŠ.BI S[ÚD ...]
 9' ^rDÚ' SU-šú E[Š ...]

^{2'}If a man's epigastrium³⁸ [...] ^{3'}whatever he eats and drinks [...] ^{4'}... name of his god³⁹ [...] ^{5'}[To sa]ve him [...]

^{6'}[...] ...[...]^{7'}[tad]pole of green frog, [...] ^{8'}*hašhūru*-apple tree, reed. You po[und] (them) together [...] ^{9'}... you ru[b] his whole body [...]

(BAM 434 i 2'-9')⁴⁰

15 [...] *at-ma šá* BÍL.ZA.ZA SIG₇

16 [...] ^rx' EŠ.MEŠ-su-ma TI

^{15'}[If ditto, ...] tadpole of green frog ^{16'}[...] you rub him and he will live.

(BAM 434 iii 15-16)⁴¹

12' [.....S]AG ŠÀ-šú MÚ.MÚ DÚ UZU.MEŠ-šú GU₇.MEŠ-šú *mim-ma* GU₇ ^rx' [...]

13' [...] ^rx' NA BI UŠ₁₁ DAB-^ršú [*ana*] TI-šú ^úur-né-e ^úḪAR.[ḪAR² ...]

14' [...] ^rx' DIŠ^{nis} SÚD *ina* KAŠ.SAG NU [*pa-ta*]ⁿ NAG.MEŠ *at-ma*

15' [*ša* BÍ]L.ZA.ZA SIG₇ ḪÁD.A SÚD *ina* ^rΓ.[GIŠ]⁴² EŠ.MEŠ-su-ma T[I]

^{12'}[If a man's epigastrium is constantly bloated, his whole body keeps on causing him a nagging pain, whatever he eats and drink [...] ^{13'}[...] witchcraft has seized that man. [To sa]ve him: *urnū*-plant [*ha*]šú-plant [...] ^{14'}[...] you pound (them) together, he drinks (it) repeatedly in beer on empty st[omach]. ^{15'}You pound a dried ^{14'}tadpole of ^{15'}green frog, rub him repeatedly (mixed it) in oil and he will recover.

(BAM 90 obv. 12'-15')⁴³

It is important to note that the three prescriptions presented above deal with various diseases caused by witchcraft: the prescription in BAM 205 obv. 14'-16' and its parallel include a

³⁷ The prescription was edited by Abusch-Schwemer 2011, 103 and 112.

³⁸ Abusch-Schwemer: man's abdomen

³⁹ Abusch-Schwemer: oath of his god

⁴⁰ The prescription was edited by Abusch-Schwemer 2011, 214 and 232.

⁴¹ The prescription was edited by Abusch-Schwemer 2011, 215 and 233. The text corpora in Babmed suggests that the prescription col. iii 15-16 is parallel to BAM 90' obv. 12'-15' and 81-7-27, 73 ii 16'-18', but the translation of Abusch and Schwemer contradicts this suggestion.

⁴² Babmed: *ina* K[AŠ...]

⁴³ The prescription was edited by Abusch-Schwemer 2011, 226 and 239.

treatment against potency problems and sexual impurity caused by witchcraft; the two prescriptions in BAM 434 i 2'-9' and iii 15-16 deal with witchcraft induced sufferings. The fourth prescription includes a treatment against problems of the epigastrium. The use of the 'tadpole of the frog' in the recipe for providing patient's sexual potency (BAM 205 obv. 14'-16' and its parallel) can probably be correlated to the metaphor related to specific animals with dominant sexual potency or productiveness in love magic (like dogs, donkey, stallion). Although I do not know of such a metaphor concerning frogs, it can be supposed that a similar analogical association between the frog and the sexual potency which was based on its inherent property exists (like long copulation time or productiveness of the animal).⁴⁴ Also, of noteworthy significance: the use of the frog is also attested in one Šaziga ritual. Here is a quote from Biggs' translation with minimal corrections:

⁶Its ritual: you dry and crush a green frog, in powder of [...] ⁷you mix together in *pūru*-oil. *After the water...* [...] with] ⁸oil you rub him, [sprinkle?] tamarisk juice seven times in front of him (and) seven times be[hind him], ⁹his potency will be remedied.
(K 2499 (Biggs 1967, pl. 1) obv. 6'-9')⁴⁵

In the group of treatments which use a living animal, I know three recipes which mention the term 'green frog'. This expression appears widely in prescriptions related to the frog as healing material as I mentioned above. One of these prescriptions is a phylactery against the hand of ghost, the text was elaborated by Scurlock. Here is a quote from her translation with minimal corrections:

If a man has been seized by the hand of ghost and hand of his god and goddess is upon him, you mix (together) a bone from mankind, a green frog, a soiled rag, pig dung, hair of a black dog, hair of a cat, *zalāqu*-stone, *mūšu*-stone (and) naphta, fumigate him over coals, (put it) in a leather bag.
(K 2566+ (CT 23 pl. 48 and AMT 103, 1) ii 5-7 // K 4023 (AMT 103, 1+) ii 2'-4' // BAM 469 rev. 32-34)⁴⁶

The remaining two prescriptions using a frog as healing material can be found in two fragmentary recipes against teeth problem.

A_i 28 DIŠ NA ZÚ-šú GU₇-[šú ...]
B₆ [DI]Š NA ZÚ.MEŠ-šú GU₇.M[EŠ-šú ...]
A_i 29 DIŠ KIMIN BIL.ZA.ZA [...]
B₇ BIL.ZA.ZA SIG₇ Z[É? ...]
A_i 30 DIŠ KIMIN BIL.ZA.ZA [...]
B₈ BIL.ZA.ZA SIG₇ Z[É? ...]
If a man's tooth (var. teeth) hurts (var. hurt) him [...]
If ditto (= a man's tooth hurts him), green frog, bi[le of? ...]
If ditto (= a man's tooth hurts him), green frog, bi[le of? ...]
(A = BAM 538 i 28-30 // B = AMT 30, 13 6'-8')⁴⁷

It can be observed that the 'tadpole of the green frog' was used in all treatments combined with further drugs and in all prescriptions the medicine was applied as an ointment. In the prescription against the 'hand of ghost' the green frog was applied in conjunction with further healing materials as fumigation and phylactery. We have to emphasize that the different methods couldn't mean simply a technical difference: salves belong to the group of pharmacological treatments (like poultice or potion) whereas fumigations and phylacteries were

⁴⁴ Biggs 2002, 77.

⁴⁵ For the edition of the text, see Biggs 1967, 42-43.

⁴⁶ The prescription with all manuscripts was edited by Scurlock (Scurlock 2006, 560 no 245).

⁴⁷ For the English translation of the prescription see Campbell Thompson 1926, 58. For the transliteration of AMT 30, 13, see the corpora of BabMed.

more likely the part of a magical-ritual toolbar often accompanied by medical incantations belonging to the Mesopotamian incantation priest.⁴⁸

In sum, we can observe that the various types of living frog were frequently used in a dried form, but we can find different methods for applying it as medicine. In most cases the dried frog or different healing materials including a frog will be mixed with oil or other liquids to produce a salve.

Liquids and body parts of the frog as a drug

Another important group of references related to the frog consist of terms connected to various body parts and liquids related to the animal. The references are connected to ‘frog bile’ (8 prescriptions), frog fat (2 prescriptions), ‘belly and fatty tissue belonging to the frog’ (1 prescription), frog blood (1 prescription), frog skin (3 prescriptions), frogs’ lung (1 prescription), unidentifiable parts of the frog (1 prescription). While observing all of this, it is remarkable to notice that most references relate to various bodily exudates belonging to the animal (bile, blood, fat). It is also noteworthy the lack of head, which is frequently attested as being an ingredient of different animal drugs made of lizards, snakes or various birds.

Frog bile

The most frequently attested drug related to the frog is the ‘frog bile’. Although the most references concerning this term cited only the term without any technical reference, one prescription from the Neo-Assyrian period provides a clear instruction to dissect the animal.

A_{i 23}’ [... Z]A SIG₇ ta-ša-lip ZÉ-su ina Ì.NUN HI.HI IGI^{II}-šú te-^r qí
B_{i 14}’ BIL.ZA.ZA [... ZÉ-su ina Ì.[.....]
You cut open a green frog, mix his bile in ghee (and) anoint his eyes.
(A = BAM 510 i 23’ B = BAM 513 i 14’)⁴⁹

Moreover, the use of the drug ‘frog bile’ is attested from the Old-Babylonian text. The single reference known to me was mentioned by Kinnier Wilson as a courtesy of Irving Finkel,⁵⁰ but further drugs related to the internal part of the frog are attested in another Old-Babylonian tablet. Here, I present the edition of the relevant prescription.

1. hu-pa-an-šá ku-uš-ti pa-an-šá
2. pi-te-eš pi-ni-ir ša-na-bu-na pi-te-eš pi-ni-ir
3. ši-pa-at tu-ul-tim
4. mu-ša-ḥa-ra-na ta-ša-ba-at-ma
5. li-^rib^r-ba te-pi-ti ta-ka-al-ta-šu
6. ù ḥi-mi-is-su te-le-eq-qí
7. ina i-ša-tim tu-ša-ab-ša-al
8. ba-lum pa-ta-an ina mu-uḥ-ḥi
9. ši-in-ni-šu ma-ru-uš-ti ta-ša-ka-an-ma
10. ù ta-ta-na-ad-di-ma ba-li-iṭ

¹⁻²Abacadabra incantation.⁵¹ ³Incantation against the (tooth) worm. ⁴You catch a frog, ⁵open (its) inner parts, ⁶take out ⁵its *takaltu*⁵² ⁶and its fatty tissue, ⁷cook (them) on fire, ⁹place (them) ⁸on an empty stomach onto ¹⁰his sick teeth and ¹¹and put (this medicine) repeatedly (on his teeth) and he lives.
(YOS 11 no. 4 obv. 1-10)

⁴⁸ Geller 2010a, 91.

⁴⁹ No edition is known to me. For the French translation, see Attia 2015, 9 (§ 16).

⁵⁰ *ze-e mu-sa-ah-hi-ra-ni-im* (BM 113935, obv. ii 9) Reference to this text in Kinnier Wilson 2005, 48 note no. 14.

⁵¹ The language of incantation was interpreted by George as Elamite (George 2016, 5)

⁵² The term was interpreted as ‘stomach (also as a name of ‘exta’ in CAD T p. 61. Stol argued that that the term is closely related to the digestion and it refers to the liver (Stol 2006, 107-110). Scurlock and Andersen also interpreted it as liver and discussed the illness name TUN GIG under liver diseases (Scurlock-Andersen 2005, 138 and 705 note no. 124 with references). See also Cadelli 2018, 11-13.

The prescription contains a medical-magical procedure against tooth worm. The treatment is a *simplicium* using an internal body part and an exudate belonging to the frog. The healing material will be cooked and placed on the sick tooth.⁵³ It is important to note that the text also contains a technical instruction for the dissection of the animal.

When studying the two Neo-Assyrian medical tablets (BAM 3 and BAM 503) ‘frog bile’ was applied frequently as an ingredient for remedies pertaining to ear problems. I present the relevant prescriptions below.⁵⁴

Ì.GIŠ^{sim.d}MAŠ ZÉ¹⁵⁵ BIL.ZA.ZA ana ŠÀ GEŠTU^{II}-šú BI.IZ
You drop oil of *nikkiptu*-plant, frog bile into his ears.
(BAM 3 iv 24)⁵⁶

Ì^{sim}BULUH^{LI} ZÉ BIL.ZA.ZA ana ŠÀ GEŠTU^{II}-šú BI.IZ
Oil of *buluhhu*-plant (and oil of) *burāšu*-juniper, frog bile. You drop (them) into his ears.
(BAM 503 iii 4)⁵⁷

[^{gis}N]U.ÚR.MA HÁD.A SÚD ana ŠÀ GEŠTU^{II}-šú MÚ-a[h ... ^{gis}ERJEN^{sim}[... ZÉ? BIL].ZA.ZA tur-ár SÚD
[ana ŠÀ GEŠ]TU^{II}-šú MÚ
You dry and crush *nurmû*-tree, blow (them) into his ears. You dry and crush [...] cedar, [...] aromatic plant, frog [bile?], ¹⁷blow (them) into his ears.
(BAM 503 iii 16)⁵⁸

19 [... Ì.UDU] KUR.GI^{mušen}
20. [... ZÉ? B]IL.ZA.ZA
21. [... ŠÀ GEŠ]TU^{II}-šú GAR-an
¹⁹[...] goose [fat] ²⁰[...] frog [bile] ²¹[blow (them) into his ears? ...] put it into his ears
(BAM 503 iii 19-21)⁵⁹

Aⁱⁱⁱ³⁹ DIŠ NA LUGUD ina ŠÀ GEŠTU^{II}-šú DU-ak ‘A’ ^{gis}NU.ÚR.MA Ì.GIŠ BÁRA.GA Ì^{gis}EREN ‘x’[...]
Bⁱⁱ²¹⁻²² [DIŠ N]A MÚD ina GEŠTU^{II}-šú DU-ak A ^{gis}NU.Ú[R.MA] ²²[Ì.GIŠ?] BÁRA.GA Ì.GIŠ ^{gis}EREN HI.HI
ana ŠÀ GEŠTU^{II}-šú B’[I.IZ]
Aⁱⁱⁱ⁴⁰ Ì^{sim}BULUH^{LI} ZÉ BIL.ZA.ZA SIG₇ ana ŠÀ GEŠTU^{II}-šú BI.IZ še-mi-[šú? ...]
Aⁱⁱⁱ⁴¹ MÚD NIM HI.HI ana ŠÀ GEŠ[TU^{II}-šú ...]
³⁹If pus (var. blood) flows from a man’s ears, [you mix] juice of *nurmû* tree, filtered oil, cedar oil [(and) drop it into his ears. Alternatively?] ⁴⁰you drop oil of *buluhhu*- plant, (and oil of) *burāšu*-juniper, bile of green frog into his ears. His hearing [...]
(A = BAM 503 iii 39²-41² // B = CTN 4, 113 ii 21-22)⁶⁰

All prescriptions presented above use frog bile as drugs for ear drops or fumigations. It is important to note that all remaining drugs in the relevant prescription are healing plants and this fact suggests the possibility that the term ‘frog bile’ maybe represents a ‘code name’ of a common healing plant. I will return to this question in the later part of this paper. The last prescription related to frog bile is preserved in the 29th tablet of the Diagnostic Series (BM 56605 obv. 6-8), which includes an unusual type of frog and an unordinary technical instruction

⁵³ Cf. the procedure in BAM 393 obv. 8-13 (prescription against ‘teeth worm’) wherein the remedy should be applied on the opposite side.

⁵⁴ When studying the BAM 503 I accepted Scurlock’s emendation in lines 16 and 20 however, due to the lack of parallels, construing things otherwise cannot be excluded.

⁵⁵ Contra: KUŠ (‘frog skin’) (Worthington 2006, 25 and 31). Cf. CAD M/2 241a: ZÉ BIL.ZA.ZA.

⁵⁶ The prescription was edited by Worthington 2006, 25 and 31. The treatment is nearly parallel to BAM 503 iii 39²-41².

⁵⁷ The prescription was edited by Scurlock 2014, 374 and 383.

⁵⁸ The prescription was edited by Scurlock 2014, 374 and 383.

⁵⁹ The prescription was edited by Scurlock 2014, 374 and 383.

⁶⁰ The prescription was edited by Scurlock 2014, 375 and 384.

related to the animal.⁶¹ The treatment is a *simplicium* which needs a frog ‘which stands on a *samallû*-plant or an *urullu* reed’ and the procedure orders as follows: ‘you pierce its gall-bladder and rub him (with) its juices’.⁶² Moreover, a further text belonging to the Diagnostic Series mentions the ‘green [frog] which was standing on an *elpetu*-rush’.⁶³ Although the mentioned plants (*samallû*-plant, *urullu*-reed and *elpetu*-rush) were used as drugs in other medical texts, but none of them were connected to the frog. It is notably not unusual in pharmacological and therapeutic texts that plants are connected to specific animals. As Böck observed, in one group of drugs name the determinative of plant (Ú) anticipates the name of an animal and she suggested that these terms perhaps reflect upon ‘the symbiosis of some insect and small reptiles with their host or food plant’.⁶⁴ On the other hand the pharmacological texts have some paragraphs wherein the description of certain plants includes references to a specific animal. For example, the *asqūdu*-snake is connected to *ašqulālu*-plant⁶⁵ or in a manuscript of the list Uruanna can be found a passage (KADP v 36-48) wherein various small animals (geckos, snakes) are connected to various plants.⁶⁶ Unfortunately, none of these texts mention the frog.

Frog fat

The next discussed term is the so called ‘frog fat’ (Ì.UDU BIL.ZA.ZA) which belongs to the group of ‘animal fat’ used widely in therapeutic prescriptions as a drug.⁶⁷ One group of the animal fats (like ‘ox fat’ or ‘pig fat’) seems to be really internal bodily exudates particular to certain animals. This type of drug is used in two different ways in healing treatments. In the most references the animal fat was used as a liquid mixed with various drugs but in another references the method of preparation of the animal fat is similar to the healing plants (to dry and cook it). The ‘frog fat’ is attested in two Neo-Assyrian texts and a single Neo-Babylonian medical tablet. Here I present the references:

65. [.....] ‘x’ ŠUB^{di} TA *ib-taš-lu-u* SAG.DU-*su* EŠ.MEŠ *ku-lil-ta*₅ ḪÁD.[DU[?] (x)]

66. [.....] ‘Ī.UDU BIL.ZA.ZA *ina* Ì.NUN ḪI.ḪI ŠÉŠ.MEŠ-*ma* SÍG ‘Ē’[^e]

⁶⁵⁻⁶⁶[...] throw; anoint his head repeatedly after it has been cooked; mix dried *kuliltu* insect [...] frog fat in ghee, anoint repeatedly and (his) hair will grow.

(BAM 494 ii 65-66)⁶⁸

[...-*r*]-*i-tu*⁶⁹ KI Ì.UDU BÍL.ZA.ZA ḪI.ḪI I[GI.MEŠ[?]-šú[?] MIN[?]]

[...] you mix frog fat with [...] *itu* [his] ey[es ditto (= you rub)]

(BAM 17 i 3’)⁷⁰

⁶¹ According to N. Heeßel this text is a diagnostic-astrological text (Heeßel 2000, 112) which does not belong to the series tablet of SA.GIG (Heeßel 2000, 137 note no. 45). Cf. its parallel on 29th tablet lines 52’-54’ (Scurlock, 2014, 217 and 221 as well as 223 note no. 26).

⁶² The text was edited by Heeßel 2000, 117-118 and 120 (hand copy 468); Scurlock 2014, 217 and 221 and recently by Chalendar 2016, 101.

⁶³ For the edition of the text, see Scurlock 2014, 216 and 219. Notable, in the discussion about the remedies made of frog, Pliny mentions a specific type of frog “that are live only in brambles” (Pliny: Natural History book xxxii chapter xviii caput 50).

⁶⁴ Böck 2011, 696 and Bácskay 2015, 17.

⁶⁵ Stadhouders 2011, 18 (§19) and Stadhouders 2012, 9 (§19).

⁶⁶ Stadhouders 2011, 35-36 (Appendix B) and Stadhouders 2012, 17 (Appendix 1B).

⁶⁷ The most frequently used terms for animal fat in therapeutic texts are the following: ox fat, pig fat, sheep fat, lion fat, goose fat. In particular, the terms ‘sheep kidney fat’, ‘ox kidney fat’ or ‘goat kidney fat’ means a specific internal exudate related to the kidney. Cf. Rumor’s note about sheep kidney fat (Rumor 2017, 23 note no.60).

⁶⁸ Edited by Bácskay- Simkó 2017, 15 and 25.

⁶⁹ The fragmentary drug name could be *agargarītu*, *kibrītu*, *ru’ītu*, *tašrītu*, etc. The transliteration of BabMed ([... IGI].MEŠ-šú *te*¹-*qi*) seems not convincing to me.

⁷⁰ No edition is known to me. For the transliteration of the prescription, see the corpora of BabMed.

The first reference is a fragmentary treatment against hair loss which consists of two subsequent or alternate ointments. The ‘frog fat’ mixed in ghee was used as a drug in the second therapy. The other reference is also an ointment against eye problems. The text is fragmentary but I suggest that frog fat as a liquid should be mixed with another drug which is only fragmentary preserved in the text.

Frog blood

The last exudate related to the frog is the blood. Although, the using of animal blood (like *kurkû* bird, pig, lizard etc.) is not unusual in medical texts, I know of an example where frog blood is used in a single treatment (poultice) against the skin disease *epqēnu* preserved in MB medical text from Emar (Tsukimoto 1999 line 82).⁷¹

Body parts of the frog

As I mentioned earlier, the majority of references which use the frog as a drug are connected to various exudates of the frog. The use of internal body parts of this animal to my knowledge is not documented with certainty. The single healing material related to the frog but without using an internal body part or exudates is the ‘skin of the frog’. This material was used in the 29th tablet of the Diagnostic series as an ingredient which could be put in a leather bag or used as a material for the leather bag.⁷² The use of skin from various animals as a material for leather bags is usual and noteworthy but I do not find any further reference related to the frog skin in the therapeutic texts.⁷³

Fragmentary and uncertain references

Beside the presented texts mentioned above six fragmentary and uncertain references can be found. One of them contains perhaps ‘frogs’ lung’ as a drug (SpTU 1, no.44 rev. 77) but this term was interpreted differently by various scholars.⁷⁴ In another prescription against ‘any evil’ the term is fragmentary ([...] BIL.ZA.ZA SIG₇.SIG₇-*qí* and [...] *x-ti* BIL.ZA.ZA SIG₇.SIG₇).⁷⁵ Further fragmentary reference can be found on a single column of a medical-magical tablet which includes phylacteries against epilepsy: [...] ‘x x’ BIL.ZA.ZA SIG₇ *ina* K[UŠ] = [...] ... of⁹ the green frog, (wrap it/them) in leather (BAM 476 rev. 14’).⁷⁶ Another fragmentary reference is attested on a four column Neo-Babylonian tablet which includes recipes against various skin problems: [DIŠ K]IMIN KI Ì.GIŠ ‘x’ BIL.ZA.ZA ḪÁD.DU GAZ ‘SIM’ [...] = If ditto, you dry out oil ... frog, grind and sieve (it) [...].⁷⁷ The last fragmentary medical reference to the frog as a drug known to me can be found on BAM 150 which includes a fragmentary phylactery against fever: BIL.ZA.ZA[?] [SI]G₇[?] *ina* ‘KUŠ’ *ina* GÚ-šú GAR-*an* = (you wrap) green frog in leather, place (it) in his neck (BAM 150 rev. 18).⁷⁸ Finally, I present a fragmentary Neo-Assyrian text which includes an unidentifiable ritual using a frog probably as an ingredient for fumigation.

⁷¹ The prescription was edited by Scurlock 2014, 434-435 and 437

⁷² Sa-gig tablet 29 lines 15-16 and 25-26 (edited by Heeßel 2000, 117-30 and Scurlock 2014, 216 and 219).

⁷³ Cf. my note no. 46.

⁷⁴ Heeßel suggested MUR BIL’(Kopie: bu).ZA.ZA and also translated it als ‘Froschlunge’ in TUAT (Heeßel 2011, 57 and note no.139) but Scurlock transliterated differently (*ḫar-pu-ša-ša*) and interpreted it as a plant name (Scurlock 2014, 405 note no. 78).

⁷⁵ BAM 502 obv. 12’ and K 8190 rev. 3 (edited by Abusch-Schwemer 2016, 352-353 and 354).

⁷⁶ No any edition is known to me. For the transliteration of the prescription, see the corpora of BabMed.

⁷⁷ The prescription was edited by Geller 2010b, 46 and 50. Geller transliterated hypothetically the fragmentary sign before BIL.ZA.ZA as ‘AMAR’ and translated the term as ‘frog stone’.

⁷⁸ The prescription was edited by Bácskay 2018, 139-140.

1' [...]
 2' [...] 'har *sa'-am-su-'i'-[lu-na ...]*
 3' [... A².M]EŠ *a-na 'ma'-kal-ti [...]*
 4' [... *i'-na lib-bi A.MEŠ-šu-nu-ti mu-ša-''-[i-ra-nu ...]*
 5' [...] NIG.NA *sa-am-su-i-lu-na 'x' [...]*
 6' [... *mu]-ša-'i-ra-nu an-na-a ša-bat-ma 'x' [...]*
 7' [... *sa-am-su]-i-lu-na a-na ša-bat 'i?'⁷⁹ [...]*
 8' [...] *ma-kal-ti [...]*
 9' [... *m]u-ša-''-[i-ra-nu ...]*
 1' [...] ²[...] ... Samsui[luna ...] ³[...] water in *mākaltu* bowl [...] ⁴[...] in their water, frog [...] ⁵[...] censer (of) Samsuiluna [...] ⁶[...] seize that frog and [...] ⁷[... censer?] (of) Samsuiluna, in order to seizing of [...] ⁸[...] off/in *mākaltu* bowl [...] ⁹[...] frog [...]
 (K 10863)⁸⁰

The frog as a secret name of a plant

Between the aforementioned references related to the use of frogs or a body part of a frog, one may observe two clear allusions to the real use of the animal: 1) in substitute rituals wherein the frog was seized and released, 2) in some therapeutic prescriptions which mention the dissections of the animal. Notable: in the vast majority of prescriptions the frog is attested in conjunction with healing plants which raises the possibility that some terms related to the frog may be interpreted as the secret name or code name of specific healing plants.⁸¹ Indeed, one short passage in the third tablet of Uruanna includes two lines related to the frog. Here, I quote the relevant lines of the text from the recent edition of the tablet made recently by Magdalena Rumor.

Drug *baqqu*-gnat/mosquito[?] | AŠ green frogs
 (Var.) Drug *baqqu*-gnat/mosquito[?] | AŠ skin (of) green frog
 Drug *kukru* | AŠ green frogs
 (Uruanna tablet III. line 43 and 43a)⁸²

When analysing the text, the frog relates to two plants: '*baqqu* gnat' plant (or 'plant of *baqqu* gnat') and *kukru*-plant. The plant *kukru* is one of the most frequently attested drugs in medical texts and I do not know of any other reference which confirms the connection between frog and *kukru*-plant. When looking at this line, Kinnier Wilson suggested hypothetically that the association between the frog and the plant name is probably based on the homonymy between the Akkadian word *kurku* (means: croak) and the *kukru*-plant.⁸³ Martin Worthington followed Kinnier Wilson's suggestion and he identified the term 'frog skin' attested in BAM 3 iv 24 as *kukru*-plant.⁸⁴ One may notably suggest an alternate explanation to interpret this part of Uruanna III wherein the left column of the tablet contains the accessible, inexpensive drugs for everyday medicine and the right column would give the hardly available, expensive drugs for

⁷⁹ Lambert: n[a ...]

⁸⁰ The transliteration of the fragment can be found in Notebook of Lambert 4 folio 9491. The photo of the tablet can be found in CDLI (P398936).

⁸¹ The idea about this type of interpretation originates from Franz Köcher who argued that the specific type of the healing material related to animal dungs, hair etc. (he called them 'Dreckapotheke') was used by the Mesopotamian scholars as a code name for common healing plants in order to hide the secret knowledge from outsiders (Köcher 1995). His suggestion is based on the lexical list Uruanna which provides plant names for animal substances. Later, Kinnier Wilson rightly proved the presence of the scribal education's tools (metathesis, paronomasia) in the relevant passage of Uruanna and he also suggested that some terms can be probably interpreted as popular names of healing plants (Kinnier Wilson 2005). Cf. the recent edition of the relevant tablet of Uruanna (Rumor 2017).

⁸² For the edition of the text, see Rumor 2017, 10 and 27.

⁸³ Kinnier Wilson 2005, 48.

⁸⁴ Worthington 2006, 39 note to iv 24. Cf. my different interpretation on p. 9.

the healing of high ranking people.⁸⁵ In our case it means: if the doctor cannot or does not want to get a green frog it can be replaced with the plant *kukru*.

When studying the scientific interpretation of the frog as a drug, there is an SB medical commentary text which is known, and which includes a fragmentary explanation for the frog.

(the Sumerian) BIL.ZA.ZA (means) : (Akkadian) *muša'irānu* (= frog) : (that is) *purunzaḥu* (frog)
purunzaḥu (frog) : (is equivalent with the tem) *pirinzaḥu* (frog)
(SpTU I, 49 obv. 3-4)⁸⁶

The commentary interprets the meaning of the Sumerian lemma BIL.ZA.ZA in two steps. At first the commentator provides the Akkadian equivalent of the Sumerian term and then gives two further Akkadian synonyms for *muša'irānu* (frog) and this attestation is known from the lexical list Ur₅-ra. The second part of the explanation correspond *muša'irānu* with *pirinzaḥu* and similar explanations can be found in a NB or SB commentary text to the lexical list Aa II/2.⁸⁷

Conclusions

It can be stated that the living frog or the materials related to the frog (like frog bile, frog blood etc.) were used in various forms (ointment, poultice, ear drops, potion) for healing several different illnesses (ear complaints, falling hair, eye problems, skin problems, respiratory problems, complaints caused by hand of ghost, potency problems and other complaints caused by witchcraft, tooth worm, complaints caused by 'any evil'). It is important to note, that my analysis did not focus on the investigation of the real therapeutic effect of the frog, but I can identify some specific associations related to the frog which could provide an explanation for the use of this animal in medical texts.

Concerning the interpretation of the medical use of various animals or animal substances, we can distinguish three different methods. One of them is based on the symbolic association between the illness and the healing material. Concerning the frog, I identify two aspects which can be interpreted under the symbolic association. Firstly, as I mentioned above, the use of frogs in potency rituals is based on the inherent property of the animal (which is to say long copulation time or animal fertility). Secondly, the use of frog as a carrier of patients' illnesses from the human sphere is probably based on the amphibious character of the animal which connected the frog partially to the Earth (human sphere) and to the cosmic subterranean sea, the *Apsû* (divine sphere). The frog, as a liminal being was seen as able to pass between the human and divine world. Therefore, being fit for taking away diseases from the patient and transferring it out of the human world.

Another method to interpret animal substances can be based on the idea that the healing materials related to animal substances are the 'code name' or 'popular name' of healing plants. I also discussed the relevant passage of Uruanna above which suggests that the term 'frog' or 'skin of frog' can be interpreted such a type of a code name or popular name of two healing plants ('*baqqu* gnat' plant and *kukru*-plant). When studying this interpretation, it is important to note that I do not know of any further reference which testifies to this correspondence.

The third method suggests that healing materials including animal substances were used as an alternate or substitute material for healing materials. This method is based on the different variants of the same prescription, but I do not know any references which can testify to the use of frog for this reason but perhaps the mentioned reference in Pliny's book to the frog as a healing drug can be interpreted as echoes of these prescriptions.

⁸⁵ For this question, see recently Chalendar 2016, 100-101.

⁸⁶ Clancier 2009 GKAB <http://oracc.org/cams/gkab/P348470>

⁸⁷ BM 41354 obv. 18-19 (edited in MSL XIV p. 274) and footnote to the line 19f.

References

- Abusch T., Schwemer D. 2011.** *Corpus of Mesopotamian Anti-witchcraft Rituals Volume One*, Ancient Magic and Divination 8/1, Leiden/Boston.
- Abusch T., Schwemer D. 2016.** *Corpus of Mesopotamian Anti-witchcraft Rituals Volume Two*, Ancient Magic and Divination 8/2, Leiden/Boston.
- Attia A. 2015.** Traduction et commentaires des trois premières tablettes de la série IGI, *JMC* 25, 1-120.
- Bácskay A. 2015.** Magical-medical prescriptions against fever: an edition of BM 42272, *JMC* 26, 1-32.
- Bácskay A. 2018.** Therapeutic Prescriptions against Fever in Ancient Mesopotamia, *AOAT* 447, Münster.
- Bácskay A., Simkó K. 2017.** Edition of BAM 494. The fifth tablet of UGU or a compilation of recipes against the skin diseases of the head, *JMC* 30, 1-71.
- Biggs R. D. 1967.** *ŠĀ.ZI.GA Ancient Mesopotamian Potency Incantations*, New York.
- Biggs R. D. 2002.** The Babylonian Sexual Potency Text, in S. Parpola, R. M. Whiting (eds.): *Sex and Gender in the Ancient Near East*, *CRRA* 47, Helsinki, 71-78.
- Böck B. 2011.** Sourcing, Organising, and Administering Medicinal Substances in K. Radner, E. Robson (eds.): *The Oxford Handbook of Cuneiform Culture*, Oxford, 690-705.
- Cadelli D. S. 2018.** Les parties du corps dans la série šumma amêlu suâlam maruṣ, *JMC* 31, 2-25.
- Campbell Thompson R. 1926.** Assyrian Medical Texts, *PRSM* 19, 29-78.
- Caplice R. 1971.** Namburbi Texts in the British Museum. V, *Orientalia NS.* 40, No. 2, 133-183.
- Chalendar V. 2016.** What reality for animals in the Mesopotamian Medical Texts? Plant vs. Animal, *Anthropozoologica* 51/2, 97-103.
- Ebeling E. 1957-1971.** *Frosch*, in: *RLA* III, 118.
- Geller M. J. 2005.** *Renal and Rectal Disease*, BAM VII, Berlin.
- Geller M. J. 2010a.** *Ancient Babylonian Medicine: Theory and Practice*, Chichester.
- Geller M. J. 2010b.** Skin disease and the doctor, *JMC* 15, 40-56.
- George A. R. 2003.** *The Babylonian Gilgamesh Epic*, Oxford.
- George A. R. 2016.** *Mesopotamian Incantations and Related Texts in the Schøyen Collection*, CUSAS 32, Bethesda, Maryland.
- Herrero P. 1984.** *Thérapeutique Mésopotamienne*, Paris.
- Heeßel N. P. 2000.** *Babylonisch-assyrische Diagnostik*, AOAT 43, Münster.
- Heeßel N. P. 2011.** Erkrankungen der Ohren, der Nase und Atemwege des Mundes, der Zunge und der Zähne, in B. Janowski, D. Schwemer (eds.): *Texte zur Heilkunde*, TUAT NF 5, Gütersloh, 52-61.
- Kinnier Wilson J. 2005.** Notes on the Assyrian Pharmaceutical Series URU.AN.NA: "Maštaka", *JNES* 64/1, 45-51.
- Köcher F. 1995.** Ein Text medizinischen Inhalts aus dem neubabylonischen Grab 405 in M. Rainer-Boehmer, F. Pedde, B. Salje (Hrsg.): *Uruk. Die Gräber. Ausgrabung in Uruk-Warka* Mainz, 203-217.
- Landsberger B. 1934.** *Die Fauna des alten Mesopotamien nach der 14. Tafel der Serie Ḫar-ra = ḫubullu*, Leipzig.

- Landsberger B. 1960.** *The fauna of Ancient Mesopotamia, first part, Tablet XIII*, MSL 8/1, Roma.
- Landsberger B. 1962.** *The fauna of Ancient Mesopotamia, second part, Ḫar-ra = ḫubullu Tablets XIV and XVIII*, MSL 8/2, Roma.
- Livingstone A. 1998.** The use of magic in the Assyrian and Babylonian Hemerologies and Menologies, *Studi Epigrafici e Linguistici sul Vicino Oriente Antico* 15, 59-67.
- Livingstone A. 1993.** The Case of the Hemerologies: Official Cult, Learned Formulation and Popular Practice, in E. Matsushima (ed.): *Official Cult and Popular Religion in the Ancient Near East*, Heidelberg, 97-113.
- Moorey P. R. S. 1994.** *Ancient Mesopotamian Materials and Industries. The Archaeological Evidence*, Oxford.
- Maul S. M. 1994.** *Zukunftsbewältigung. Eine Untersuchung altorientalischen Denkens anhand der babylonisch-assyrischen Löserituelle (Namburbi)*, Mainz.
- Maul S. M., Strauß R. 2011.** *Ritualbeschreibungen und Gebete I*, KAL 4, Wiesbaden.
- Rumor M. 2017.** The 'AŠ section' of Uruanna III in Partitur, *JMC* 29, 1-34.
- Scheil V. 1916.** Notules, *RA* 13: 125-142.
- Schwemer D. 2013.** Prescriptions and Rituals for Happiness, Success, and Divine Favor: The Compilation A 522 (BAM 318), *JCS* 65, 181-200.
- Scurlock J.A. 2002.** Animals in Ancient Mesopotamian Religion in J. B. Collins (ed.): *A History of the Animal World in the Ancient Near East*, Leiden/Boston/Köln, 361-387.
- Scurlock J.A. 2006.** *Magico-Medical Means of Treating Ghost-Induced Illnesses in Ancient Mesopotamia*, AMD 3, Leiden/Boston.
- Scurlock J.A. 2014.** *Sourcebook for Ancient Mesopotamian Medicine*, Atlanta.
- Scurlock J.A., Andersen B. R. 2005.** *Diagnoses in Assyrian and Babylonian Medicine*, Urbana/Chicago.
- Stadhouders H. 2011.** The Pharmacopoeial Handbook Šammu šikinsu – An Edition, *JMC* 18, 3-51.
- Stadhouders H. 2012.** The Pharmacopoeial Handbook Šammu šikinsu – A Translation, *JMC* 19, 1-21.
- Stol M. 2006.** The Digestion of Food According to Babylonian Sources, in L. Battini, P. Villard (eds.): *Médecine et médecins au Proche-Orient ancien*, BAR International Series 1528, Oxford, 103-119.
- Streck M. 2014.** *Tierwelt*, in: *RLA* XIV/1, 16-19.
- Volk K. 1995.** *Inanna und Šukaletuda. Zur historisch-politischen Deutung eines sumerischen Literaturwerkes*, Wiesbaden.
- Worthington M. 2006.** Edition of BAM 3, *JMC* 7, 18-48.

COMITÉ DE LECTURE

Tzvi Abusch, Robert Biggs, Barbara Böck, Dominique Charpin, Jean-Marie Durand, Irving Finkel, Markham Geller, Nils Heeßel, Stefan Maul, Strahil Panayotov, Daniel Schwemer, JoAnn Scurlock, Henry Stadhouders, Ulrike Steinert, Marten Stol.

COMITÉ DE RÉDACTION

Annie Attia, Gilles Buisson, Martin Worthington.

CONSEILS AUX AUTEURS

Les articles sont publiés sous la responsabilité de leurs auteurs.

Les auteurs doivent envoyer leur manuscrit sous format A4 par courrier électronique.

Les auteurs peuvent rédiger leurs articles dans une langue européenne en étant conscients que l'utilisation des langues de grande diffusion facilitera la compréhension par une majorité de lecteurs.

Les articles peuvent aller de quelques lignes à plusieurs pages. Les articles volumineux pourront faire l'objet d'une parution en un ou plusieurs numéros.

Un résumé de l'article est souhaité.

Les manuscrits pour publication sont à envoyer à l'adresse suivante :

AZUGAL c/o Dr Gilles Buisson, 14 rue de la Salle, 78100 Saint Germain En Laye, France.

e-mail : gilles.buisson9@orange.fr

ABONNEMENTS

Le prix de l'abonnement (deux numéros par an) est de :

25 euros pour un envoi en France

30 euros pour un envoi en Europe.

35 euros pour un envoi dans d'autres pays.

Paiement par virement bancaire, à l'ordre d'AZUGAL sur le compte suivant :

(IBAN) FR76 1820 6004 4339 3711 4300 148, (BIC) AGRIFRPP882.

Paiement par chèque, libellé à l'ordre d'AZUGAL :

- en euros, compensable en France,

- en euros, compensable à l'étranger, ajouter 20 euros pour les frais bancaires,

- en devises autres que l'euro, établir la conversion, au taux de change en vigueur, de la somme correspondant à l'abonnement, majorée de 50 euros de frais et commissions de banque.

Les chèques doivent être envoyés à l'adresse suivante :

AZUGAL, c/o Dr Gilles Buisson, 14 rue de la Salle, 78100 Saint Germain En Laye, France.

MENTIONS LÉGALES

Le Journal des Médecines Cunéiformes est publié par Azugal, association loi 1901 sans but lucratif, 14 rue de la Salle, 78100 Saint-Germain-En-Laye, représentée par A. Attia.

Imprimeur : Cydergies, 208 avenue Roland Garros, BP 136, 78531 Buc Cedex. Dépôt légal : 01-2020. ISSN 1761-0583. Directrice de la publication : A. Attia, responsable de la rédaction : G. Buisson, secrétaire de rédaction : M. Worthington.