

Review of Potter, *Hippocrates* XI (Loeb 538).

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The appearance of the last of the of the Loeb Classical Library volumes of Hippocrates is a welcome event, especially when coming from the pen of Paul Potter, widely acknowledged for his expertise in editing and translating this crucial corpus. The final volume consists of two treatises concerned with women's diseases, *Diseases of Women* 1 and 2, which differ from most other Hippocratic works. There is little interest, for instance, in a theory of humours, except for the occasional reference to a patient being either bilious or phlegmatic (pp. 216-217), and there was little use of phlebotomy in these recipes (with the first reference occurring only on pp. 180-181). In

general, there are fewer didactic passages about disease and a large proportion of the text consists of drug-based recipes.

This review will point out some Babylonian gynaecological prescriptions from the 5th-4th centuries BCE which are surprisingly similar to Hippocratic recipes in this volume. Women's diseases in both cultures differ from other kinds of therapies, by being somewhat more conservative and less theory-driven. Within this framework of practical applications, however, some theoretical assumptions appear to be operative, such as the excessive moistness of the uterus serving as an indication of abnormality or disease (e.g. excessive bleeding); this was apparently true for Babylonian medicine as well, according to an Akkadian recipe which calls for 'drying up the (canal) waters' as a metaphor for stopping unwanted bleeding (Scurlock 2014: 587).

The age-old objection always arises when comparisons are proposed, that humans are capable of independent invention of the same solutions for similar problems. Independent invention would have to assume that Greek physicians were unaware of a large body of medical knowledge available to practitioners in the neighbouring Persian empire, largely inherited from Assyrian scholarship of the 7th century BCE from the royal library of Nineveh, as well as from Assur, Babylon, Sippar, Uruk, and other sites. Furthermore, detailed similarities are likely to indicate the controlled spread of technical knowledge, rather than arbitrary coincidence, and proximity is also a factor in determining the validity of such comparisons. Not only were Babylonian and Greek medicine located in roughly the same geographical region (with Kos only five kilometres from Asia Minor), but many of the medical sources are contemporary and reflect parallel approaches to the same medical conditions. This situation differs from earlier attempts to compare Greek and Chinese medicine, which were distant and unrelated in terms of location and time frames, as well as their respective concepts of disease and treatments; the same cannot be said for Greece and its immediate neighbours to the East.

One notable study of women's medicine is a seminal article from Erica Reiner, in which she assumes a direct borrowing from Egyptian into Greek medicine. Reiner (1982: 124-127) cites previous studies (dating back to 1873) connecting birth prognoses in Egyptian papyri with Hippocratic prognoses, without considering the feasibility of deriving Hippocratic statements on pregnancy from earlier Egyptian sources. The specific technique in common involved inserting an

odorous substance, such as garlic, into the vagina and then testing if the odour can be detected in the breath; the technique is quite simplistic and assumes an unbroken channel between the two orifices, unless blocked by a foetus or by the hymen. This type of fertility test appears in Egyptian medical treatises (Kahun, Carlsberg VIII, and Berlin papyri) dating from 1820, 1300, and 1200 BCE respectively, and a similar type of test from the same period (c. 1100 BCE) is also attested in cuneiform, using smoke, (Scurlock 2014: 605, 607); a comparable method to prove virginity is known from the Babylonian Talmud (Ketuboth 10b). It is unlikely that any of these texts from Egypt or Mesopotamia could have directly influenced fertility tests found in Potter's edition (pp. 186-187), on chronological grounds. The same conundrum, however, does not apply to other types of birth prognoses in late Babylonian medicine, roughly contemporary with Hippocratic treatises on women's diseases.

The present review draws attention to Babylonian parallels to one specific passage in the *Diseases of Women 1*, based on the similarities of recipes in both corpora. This is not to argue that all of Greek gynaecology goes back to Babylonian prototypes, but that some recipes within this latest Loeb volume offer points of commonalities with Akkadian recipes. As a text genre, recipes are relatively easy to construct, record, remember, and translate, and the rather *sui generis* Hippocratic recipes in this volume may reflect a wider circulation of these remedies beyond the borders of Greek medicine.

The relevant passage in *Diseases of Women 1* is chapter 78, part of which concentrates on how to cleanse the post-partum fluids from the uterus, advocates suppositories or applications to expel the placenta (pp. 186-191). One recipe (13) reads (Potter's translation p. 187):

A medication to cause expulsion from the uterus: a draft of juice from the squirting cucumber daubed on a barley scone: apply after having the patient fast for two days. You would never find anything better than this.

Any Babylonian colleague would no doubt have agreed with this assessment. The reverse of the Ur tablet published by Reiner (1982, cited above) contains a recipe which resembles this passage. The first few lines are damaged, but where the text is full enough to be intelligible (l. 4'), it instructs the practitioner to roast the ingredients twice and then knead them and wipe them with water, sprinkle them with wax and oil, and then insert the tampon into the patient's vagina several times (i.e.

probably repeatedly over several days). Her husband should not approach her.¹ The purpose for all this is explained in what follows, stating that for two days after this, nothing is to be given to the patient (i.e. fasting), and that whatever in her womb is to be removed and the midwife is to bandage her. This concluding phrase of the passage gives away the purpose of the recipe – to remove what is likely to be a placenta. This recipe matches well with the same passage in Potter cited above, which describe suppositories for expelling the placenta or a foetus.

The similarity of these two passages is confirmed by the fact that in both the Greek and Akkadian texts, tests for pregnancy immediately follow these respective prescriptions for expulsion of the placenta. In Greek, the next statements in Potter's edition (14) and (15) begin with the word *peirētērion* 'test' (p. 186), and offer a simple procedure, that either boiled garlic or almond oil is inserted into the vagina and afterwards the patient's breath is tested for this odour. The next sequence of clauses which follow (pp. 188-189) all use tampons. The first statement (16) begins with, *prostheta*, 'suppositories' (p. 188), and most succeeding statements (17-19) are introduced either by Greek 'ē 'or' or *allo* 'another'. The individual statements instruct one to prepare various substances (sculpin, pennyroyal, flower of copper, cucumber, cuttlefish bone, blister beetles, artemisia, etc.) by dissolving them in wine or honey; each clause ends with a directive to apply the ingredients to a tuft of wool, presumably as a tampon; Egyptian alum is alternatively wrapped around the wool. The instructions only become specific again with statement (20), *xorion ekballei pota*, 'potions that expel the placenta', referring back to earlier advice (Potter pp. 190). The question is how to define the suppositories in passages 17-19 (Potter pp. 188-191); are these tampons to be used as fertility tests?

Babylonian pregnancy tests offer some useful guidance on this point, in this same tablet from Ur (Reiner: 1982, Scurlock 2014: 582-585), roughly contemporary with the Hippocratic treatise in question. Reiner points out the close parallel between the Akkadian term *itqu* or 'wad or wool' and Greek *prostheton*, 'suppository'; it is the *itqu*-suppository which was the key to testing for pregnancy in the parallel Babylonian text, which reads as follows (cf. Scurlock 2014: 582, 10-12):

¹ NITA-šú NU TE-šú. This phrase matches well with the similar but opposite phrase in this Hippocratic treatise, e.g. Potter pp. 50-51, 'then have the woman approach her husband' (*kai authis itō para ton andra*).

If ditto (ie. a test if a woman is pregnant or not), wrap white-plant and alkali in a wad of wool (*itqu*), you place it into her vagina for three days. Wash the wad of wool in water: if the wad of wool is [red, that woman is pregnant], if the suppository is yellow (reading SIG_{7-at}!), that woman [is not pregnant].

This is not the only passage corresponding to *Diseases of Women* 1. Another Akkadian recipe from the Ur tablet reads as follows (with suggested emendations):

If ditto (= a test for pregnancy), [wrap?] Egyptian alum (and) ... [in a wad of wool,, if this] looks like seaweed,² that woman [is pregnant].

Although the text is broken, the context makes clear that Egyptian alum is applied on a tampon, which is afterwards examined as to texture and colour as a test for pregnancy. The Greek description of one suppository following the pregnancy tests is simpler (Potter pp. 188-89):

‘Another. Wrap Egyptian alum in a piece of wool and apply it’.

The resemblance between these clauses seems unlikely to be entirely coincidental, and the possibility of Babylonian influence cannot be ruled out.

The reverse of the same Ur tablet (l. 6'-8') contains another pregnancy test (Scurlock 2014: 583):

Its test if pregnant or not pregnant: roast *usābu*(-plant) over a fire, turn it into ash, heat it in pressed oil, crush (it), dissolve (it) and cleanse (lit. wipe) in water, make it into a tampon, use it as much as desired.

There is no further indication as to how the tampon was used as a pregnancy test, but the prescription is roughly similar to the Greek suppositories previously mentioned, which advocate crushing and burning and grinding and kneading substances to be soaked or dissolved in wine or honey and inserted with a tampon, without further explanation as to how this worked (Potter pp. 188-189).

Comparison suggests that -- like the tufts of wool in the Ur tablet -- the Greek suppositories in this context were also used for birth diagnoses.

There are many other details which could also be subject to comparison between Greek and Akkadian gynaecological recipes, such as the Akkadian recipe beginning with a phrase, '[if a woman] is ill with *allutu*' (translated as 'crabs' in Scurlock 2014: 576); however, a much more likely match would be Greek *karkinos* 'cancer' (Potter p. 314), reflecting a tumour rather than venereal lice.

² emending the text to read: GIM¹ *a-kal me* IGI.IGI.

Potter's edition incidentally includes excellent indices of drugs and general subjects, which can be used to identify many types of drugs (including *Dreckapotheke*) common to both Greek and Babylonian medicine.

The remarkable feature of these comparisons is that while individual details are not identical (such as specific names of ingredients), nevertheless the overall structure of the passages and instructions for how to proceed are surprisingly similar. How can we explain two passages from a Greek and Akkadian text which appear to resemble each other in so many general respects? Perhaps we should assume that ancient gynaecology operated along similar lines and with similar procedures, or alternatively that some recipe-based procedures were far more widespread than has been previously recognised. In any case, Potter's excellent edition of these texts affords us the opportunity to ask whether the study of a medical procedure restricted to one language and one region, without considering contemporary neighbouring practices, might in the end turn out to produce a myopic view of ancient medicine.

Bibliography

Reiner 1982 = Erica Reiner, 'Babylonian Birth Prognoses', *Zeitschrift für Assyriologie* 72 (1982), 124-138.

Scurlock 2014 = J. Scurlock, *Sourcebook for Ancient Mesopotamian Medicine* (Atlanta)