Medicine in the Islamic World

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Problem of sources

- Enormous number of texts
- Few translations – and many are very bad
- Very few proper editions
- Very few studies incorporating `2nd division' authors
- Almost no historical criticism, especially by non-Western authors
- Idealistic repetition of traditional statements lead to cumulative errors that are repeated over the internet: al-Harith ibn Kalada, doctor to the Prophet and consulted by Chosroes, King of Persia

Unani Tibb

- The Greek origins – Galen (129-216)
- Text-based
- By 500 CE a syllabus
- Lectures/commentary
- Learned, philosophical tradition
- Franz Rosenthal, The Classical Heritage in Islam

Religious dimension

- Medicine of the Christians of the Near East
- Many famous practitioners Christians (Hunain, Bakhtishu'a family, Bar Hebraeus)
- Many Jews (Isaac Israeli, Maimonides, Manuel Brudo)
- Many free-thinkers (Rhazes)
- Overlap also between Christian and Muslim institutions

What language?

- Greek (largely confined to elite, and disappeared by 10th century CE)
- Syriac: important texts written in this Aramaic language until 14th century; early writers (Hunain) use Syriac as a first language
- Kessel G (2019) Syriac Medicine. In King D (ed.) *The Syriac World.* London and New York: Routledge: 438-59.
- Hebrew: Maimonides – Hebrew in Arabic script and vice-versa
- Persian: a high cultural tradition in India until early 20th cent. (al-Delhawi).
- Arabic
- Tibetan
- Armenian
- Chinese

Where?

- Originally E. Mediterranean (Sergius), with major centre Alexandria
- Via Syriac over al-Gezira (the Fertile Crescent) to Edessa, Ctesiphon/Baghdad, Jundishapur
- Muslim conquests take to N. Africa (Averroes, Maimonides), Iran (Rhazes), S. ex-USSR (Avicenna), India/Afghanistan (al-Biruni), Spain and Portugal.
- W. Europe via translation in Spain (Gerard, Mark) and Sicily; attempted fusion in Valencia, ca.1500

The Alexandrian (?) syllabus

Appendix 3.1 The Galenic canon, 'the sixteen books', around AD 1000

1. On sects[1]
2. Art of medicine
3. Short book on the pulse
4. Method of healing, for Glaucon
5. Collection I: Anatomy for beginners
   On bones; On muscles; On nerves; On veins and arteries
6. On elements
7. On temperaments
8. On the natural faculties
9. Collection II: The books of causes and symptoms
10. On affected places
11. Collection III: The 16 books on the pulse (p. 68)[2]
12. On the differences between fevers
13. On crises
14. On critical days
15. Method of healing
16. On the preservation of health[3]

Expansion Eastwards

- Sergius of Resaena, fl. 520, cleric, trained at Alexandria, translates theology, philosophy and medicine into Syriac
- Alexandrian syllabus in part and some other books now in the language of ordinary Christians
- Compendia – Aaron/Ahrun
- S. Bhayro, **Galen in Syriac: Rethinking Old Assumptions,** *Aramaic Studies* 15 (2017) 132–154
- Kessel G (2019) **Syriac Medicine**. In King D (ed.) *The Syriac World.* London and New York: Routledge: 438-59.
- ?Armenian

The Age of Hunain

- Hunain Ibn Ishaq, 808-873
- With Ishaq Ibn Hunain, Hubaysh al-A'sam and others translate 129+ books from Greek into Syriac and from Syriac to Arabic
- Supported by leading figures at the court of the Caliph
- Massive transfer of knowledge of Galenic medicine into Syriac and into Arabic.
- Not word for word translation so easier to understand
- More material available in Arabic translation today than in Greek

Coping with Galen

- P. Bouras-Vallianatos and B Zipser (eds) (2019) *Brill's Companion to the Reception of Galen* Leiden and Boston: Brill.
- Aaron/Ahrun 600
- Hunain, Questions and answers = Johannitius, Eisagoge
- Rabban al-Tabari, 850, Firdaws al-hikma
- Al-Razi, d. 923 For Mansur = Rhazes, Almansorem
- Selections: Al-Razi, Kitab al-Hawi = Continens
- Is Galen enough? debate between Ibn Ridwan and Ibn Butlan, 1049-1050

Philosophers at work

- Al-Majusi, fl. 960 Kamil = Haly Abbas, Pantegni
- Divides into theory and practice
- Ibn Sina, d. 1037 Al-Qanun = Avicenna, Canon
- Massive logical synthesis, combining Aristotle and Galen
- Ibn Rushd, d. 1198 Kulliyat = Averroes, Collliget
- Maimonides, d.1204 Commentaries on Aphorisms
- (Others comment on Galen, Ibn Sina – Ibn an-Nafis' discovery of circulation is in a commentary)

Continuities and developments

- Galenic base
- Teaching techniques in medical schools (but not Edessa and Jundishapur declines from small beginnings).
- Hospitals – medical as well as charitable; become the centre of medical activity, grow in size and complexity.
- Organised medical profession(s) - `market inspector' has right to oversee practice.
- International debates and transfer of information.
- E. Mediterranean medicine now extends to a wider Muslim controlled world, incorporating more detailed knowledge from E.

Galenic continuities

- Observation; al-Razi, Measles and smallpox
- Plague: endemic in Middle East until 1000, and then again after Black Death. Discussions on infection.
- Ibn Ridwan writes on diseases in Egypt in response to a Tunisian doctor/traveller.
- Pharmacology: `grades' of drug action (al-Kindi)

Experiment

- Hunayn, ophthalmology
- Ar-Razi experiments on animals
- Al-Zahrawi/Albucasis, d. 1013, surgery (last book of a 30 book compendium of medicine)
- Abd al-Latif d.1231 criticises Galen’s description of jaw bones
- Ibn Ilyas, 1396, Anatomical illustration

Pharmacology

- Dioscorides and Galen the base texts
- Dioscorides lists 850 plants; Ibn al-Baytar (d. 1248), over 3000
- Al-Samarqandi, d. 1222, takes more drugs from India and China
- Easy reference texts: Ibn Biklarish, fl. 1106, Kitab al-Mosta'ini, sets out drugs in five columns
- Name, nature and grade; synonyms in Persian, Syriac, Greek, Latin, Spanish; substitutes and preparation; therapeutic value; therapeutic uses.

A universal scholar

- Al-Biruni (973-1051), born in Persia,/Afghanistan at the court of Ghazna, travelled in India.
- Wrote on medicine and pharmacology (*Pharmacy and materia medica*) philosophy, astrology, meteorology (*On shadows*), mineralogy, history (*Chronology of the nations*), ethnology (*India*).
- Brilliant observer, relates observations to a knowledge of earlier literature).
- Independent thinker
- Not known in W. Middle Ages, or until 19th century (*Chronology*, 1879, *India*, 1888)

The great problem: the decline of `Islamic' medicine

- In 1200 superior in every respect to W. European medicine.Medicine and `social care' widely available (Cairo, Geniza documents)
- Many brilliant observers and investigators
- Contrast with the period 950-1200 and an expanding intellectual universe.
- W. therapeutics little better (even after Paracelsus) until 1850s

Some answers

- Mongol conquests in mid 13th century destroy many intellectual centres in Middle East
- Medicine largely practised by non-Arabs
- Political and economic rise of W. Europe reduces some communities to subject status (Moriscos)

Religion and medicine

- 9th century translations created under a regime favourable to the Mutazalites (a group wishing to relate Koran to wider intellectual pursuits).
- Growth of Medicine of the prophet – traditional Arabian herbal medicine + Hadith/traditions.
- Not necessarily seen as anti-intellectual (Ibn al-Latif al-Baghdadi)
- But increasingly sets up a tension between Muslim and non-Muslim views of the world (Greek sciences v religious sciences) (Parallels among Jews, Christians (Christian Science).
- Still visible today: e.g. transplantation; interpretation of Unani medicine (justification in terms of Western medicine and using Western techniques (Hamdard foundation) or a herbal, holistic non-Western tradition)

A lack of an investigative community in an increasingly traditional society

- No printing (but works seem to have circulated well before)
- Political fragmentation of the Muslim world
- Ibn an-Nafis, d. 1288, comments on the pulmonary circulation widely circulated as part of his commentary on Ibn Sina, but not developed (cf. Galenic anatomy in 16th century, Harveian anatomy in 17th).
- Commentary is a discursive series of disconnected points (Conrad)
- No anatomical tradition (religious/social attitudes to dead and to animals)
- Weak institutions supporting tradition against ideas of constant progress

Western influences

- Top-down – isolated translations of some Paracelsian works in 16-17th century into Turkish
- Introduction of W. medical practices derive from politics – Egypt (French [Clot Bey]), Turkey (French and German military medicine), Iran (French [Dr Cloquet) and British [Macneill] rivalry, then German and British; India (British); Israel (US)
- 1970s Syria bans traditional medicine at point of a gun
- Reverse influences are much smaller compared with Ayurveda and Chinese medicine – subsumed under herbal medicine and remaining within the immigrant community