The Legacy of Galen

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Outline

- Rome – Her History and “Her” Medicine
- Galen – The Early Years
- Galen – The Physician
- Galen – The Writer
  - Galenic vs Pseudo-galenic
  - Range
  - Theories
- Galen – The Legacy
Rome – “the eternal city”

- Founded by Romulus in “April” 753 B.C.
- 509 B.C. – founding of the Republic, expulsion of the Kings from the city
- 433 B.C. – the *Lex Aemela* - punishments for doctors who neglected sick slaves

The Forum of Rome as it is today…
From www.capitolium.org
Rome – “the eternal city”

- 399 B.C. – Festivals to combat pestilence commence

- 295 B.C. – Plague!
  - Sibylline books advised that Asclepius be summoned from Greece.
  - Transported in form of snake
  - Plague abated

- 283 B.C. – Pyrrhic wars…Pyrrhic victories
Rome – “the eternal city”

264-146 B.C.
- 1st, 2nd & 3rd Punic Wars – Hannibal, Carthage destroyed
- 1st-4th Macedonian Wars – Greece eventually conquered

219 B.C. – Archagatus, 1st civic “surgeon” appointed, became unpopular – “butcher”

133-121 B.C. – Turmoil, near civil war

From www.capitolium.org
Rome – “the eternal city”

- 102 B.C. – Invasion of Italy by Germans, followed by civil war
- 88-64 B.C. – Mithridatic wars (Pontus)
- Asclepiades – “original thinker”, no works survive
- 54 B.C. – “conquest” of Britain – near civil war
- 44 B.C. – Assassination of Julius Caesar – more civil wars

- 31-30 B.C. – Defeat and death of Antony and Cleopatra, founding of Empire by Octavian/Augustus
- 25 B.C. – birth of Celsus, encyclopedist, not physician, *De Medicina*
- A.D. 14 – death of Augustus, reign of Tiberius
- A.D. 37-41 – Caligula, insane, nominated horse to Senate
Rome – “the eternal city”

- A.D.41-54 – Claudius, poisoned by wife and physician
- A.D.54-68 – Nero, fiddled while Rome burned
Galen – The Early Years

- Born A.D. 129 (or 131) in Pergamon, now Bergama, Turkey
- Father, Nikon, prominent architect; mother reportedly hot-tempered/argumentative
- Greek native tongue
- Education was excellent, known authority on Aristotle at young age
Galen – The Early Years

Dream vision of Asclepius led father to send him to pursue medical studies @ age 16 under Satyrus in Pergamon

Moved to Smyrna (Pelops), Corinthos (Numisianus), finally Alexandria in AD 152

Returned to Pergamon in AD 157, and became physician to gladiators
  - reportedly very successful
  - Observed wounds, anatomy
  - Experimented with diet/exercise
Galen – The Physician

- A.D. 162 – ambition led him to Rome, gained fame as philosopher/physician
- Cured several well-connected people
- Unpopular among other physicians – frequently critical of their methods and skills
- Departed Rome abruptly A.D. 166 – likely to escape plague
Galen – The Physician

- Came back to Rome A.D. 169 at request of emperor Marcus Aurelius as court physician
- A.D. 173 – refused to go with emperor to Germany (dream vision of Asclepius), appointed physician to son in Rome instead
- Remained physician to emperors until death
- Date of death disputed A.D. 199 – A.D. 217
Galen – The Writer

- Prolific!! 21 volumes in Greek, many more in Arabic/medieval Latin translation
- 76 titles felt authentic, 6 questionable, 21 probably discredited
  - This likely represents only 1/3-2/3 of his total output
  - Many/most of his original manuscripts burned in fire at Temple of Peace in A.D.191
Galen – The Writer

1821-33 – C.G. Kühn published 20 volumes of works of Galen in Greek text and Latin translation – *Claudii Galeni opera omnia*

Some works of this Galenic “Corpus” clearly written by others, probably much later ie, “*On Urine, According to Hippocrates, Galen and Some Others*”

Other works likely written by Galenic students around time of Galen, or shortly after

These now considered the “pseudo-Galen” works
Galen – The Writer

Wide range of topics
- Commentaries (especially on Hippocrates) – 22
- Anatomy – 8
- Physiology – 9
- Hygiene – 3
- Physical Examination – 8
- Psychiatry – 7
- Embryology – 2
- Materia Medica – 6
- Treatment – 5
- Philosophy – 4
- Nutrition – 2
- General Medicine - 16
Galen – The Writer

Specific Topics included (hardly an inclusive list):

- The Pulse
- Formation of the Fetus
- Diagnosis and Treatment of Mental Disorders
- How to detect Malingerers
- On Cathartics, as well as other Materia Medica
- Anatomy of Muscles and Bones
Galen – The Writer

- Quarrelsome, often nasty to those whose opinions differed from his
  - Called Asclepiades outright liar
  - Colleagues were toadies and buffoons
- Boastful
- Extensive interpretations and commentaries on other writers, especially Hippocrates – always in context of his own theories
Galen – The Writer

One of earliest to push for peer review for publication

“It was a law in old Egypt that all inventions in the handicrafts had to be judged by an assembly of educated men and be written on pillars in a sacred place. Likewise, we should have an assembly of just and equally well-educated men. They should scrutinize all that has been written, and deposit in a public place only what appears worthwhile, but destroy what is worthless”

Galen, *Against the Opinions of Julian Concerning the Aphorisms of Hippocrates*  
Trans. R.E.Siegel, quoted by P.Prioreschi Roman Medicine, p. 327
Galen – The Theories

- Medicine of time – 3 major camps: Empiricists, Dogmatists, Methodists
- Galen officially Dogmatist, some views of Empiricist – HATED Methodists
- Contradictory about importance of anatomic knowledge for physicians
  - In some cases, great practical value and very useful
  - In other cases, studies in anatomy useless for treatment, diagnosis and prognosis of disease
  - (Medicine vs Surgery?)
Galen – The Theories *(From On Hygiene)*

- Lesions/diseases twofold in nature:
  - Inevitable/intrinsic – from the sources of generation
  - Non-inevitable – not arising from ourselves, but affecting the body
- The surrounding atmosphere harms us by making us unduly warm/cold/moist/dry
- Contacts with extrinsic things harm us by straining, bruising, wounding, dislocating
- Medications have primary properties in varying strengths: heating, cooling, drying, moistening… i.e. poppy is 4th order of cooling
Galen – The Theories

Formation of the embryo from semen: (From On Hygiene)

- Semen is wet, needs to dry to form tissues of adult
- To dry, needs heat – female provides nutrient heat/fire for development
- Organs, tendons, cartilage, muscles form and gain strength
- Heat of life/nature does not dissipate after birth – we continue to dry as we grow, and reach maximum strength
- Thereafter, we continue to dry, and shrivel and weaken, and eventually die

This is the aging process!
Galen – The Legacy

- Only acknowledged anatomic authority for over 11 centuries
  - Even though known animal-, not human-, based
  - No revision or questioning permitted
  - Errors perpetuated for generations of physicians
- 1543 Vesalius published new anatomy that superceded the Galenic, correcting many errors
Galen – The Legacy

From www.med.virginia.edu/hs-library/historical/antiqua/galen.htm
Manuscript Illustration from an edition of the works of Galen, Lyons, 1528
National Library of Medicine, Bethesda  Hippocrates, Galen and Avicenna
Galen – The Man, The Mystery...

- No contemporary pictures, inscriptions, statues of Galen remain
- Left no school, no students

Galen from www.bth.co.uk
...The Vein

From DAVID, Online Atlas of Human Anatomy for Clinical Imaging Diagnosis

From www.uhrad.com
Case 78
References

On Hygiene (De Sanitate Tuenda), trans. Robert Montraville Green, Thomas Books, Springfield, 1951

Microsoft Encarta Encyclopedia 99

Roman Medicine, Plinio Prioreschi Volume III of A History of Medicine, Horatius Press, Omaha, 1998

Web sites of use

- www.med.virginia.edu/hs-library/historical/antiqua/galen.htm
- http://www.indiana.edu/~ancmed/instr1.html
- http://www.ea.pvt.k12.pa.us/medant/hyprtxts.htm
  - Some of Galen’s and Hippocrates’ translations online
- www.cid.ch/DAVID/Mainmenu
  - DAVID, Online Atlas of Human Anatomy for Clinical Imaging Diagnosis
- www.capitolium.org/
  - Official website of the roman forums
- www.bth.co.uk
  - Beauty through Herbs, the History of Pharmacy