

Galen and his influence on ancient medicine

Areas of significance

- Treatment
 - Causes of disease
 - Knowledge of anatomy
-



Treatment 1

- Developed Hippocrates' theory of the 4 humours to the 'theory of opposites' – an example of developing previous medical ideas.
- First to relate diagnosis to periodicity.



**WROTE 16 BOOKS
ON TREATMENTS**

Treatment 2

**WROTE 30 BOOKS
ON PHARMACY**

- Passionate about treatments – travelled long distances to collect trusted ingredients for his herbal medicines.
- **The first to measure precise amounts of everything used in a remedy.**
- Travelled around the province of Asia, investigating and collecting plants for use as medicine.



Empathy and encouragement

- When Esarhaddon had eaten nothing for two days because of depression, the senior exorcist Adad-šumu-ušur sent him a letter:

**“Good advice is to be heeded:
restlessness, not eating and not
drinking disturbs the mind and adds to
illness. In this matter the king should
listen to his servant”**



Berlin Museum Replica of a stele depicting
Esarhaddon Assyrian King 7th century BC.

Treatment 3

- Set an example by putting the Hippocratic Oath into practice. Galen **never charged a fee** for treating a patient!



- Revolutionised treatment of gladiators when working with them from 157-161.



Insignificance - Treatment

- Sometimes vague with diagnosis, e.g. described recurrent paroxysms of shivering, rigor, sweating, burning heat, and unusual pulse rhythm as “fever”.
- Galen’s own words say the care of the sick took second place to his love of knowledge.
- Supernatural beliefs – formed the basis of his treatment

“We never find any country, or any city, without places where recovery is sought through divine medicine”
- Galen



Causes of disease 1

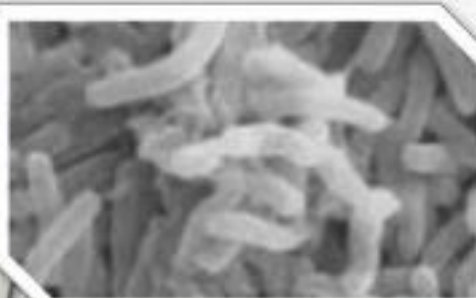
BEDSIDE MANNER

- Scrutinised patients for diagnostic clues - sensitive to small changes in temperature & pulse.
- He interrogated patients to elicit symptoms not obvious to his senses, e.g. pain.



GALEN TEACHES OTHERS HOW TO DIAGNOSE A DISEASE PROPERLY

Causes of disease 2



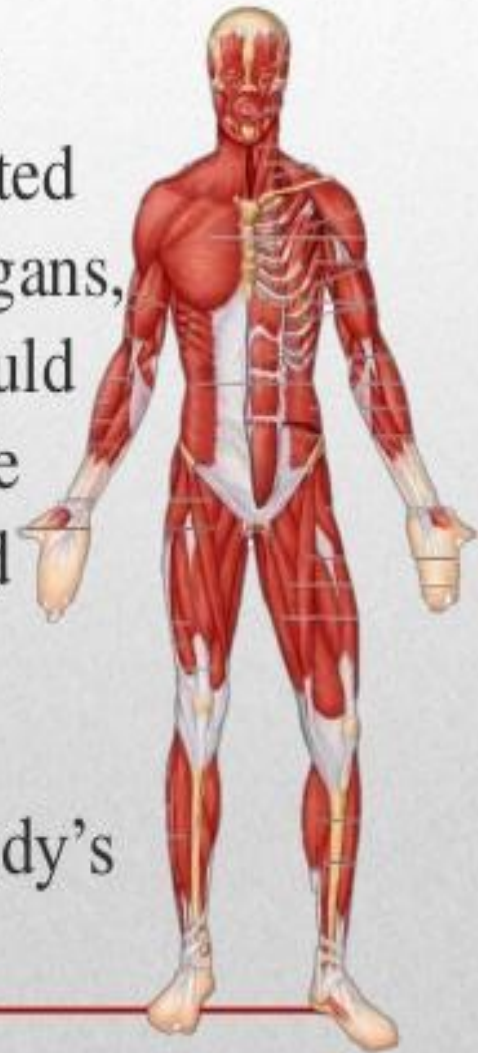
- Also wrote 6 books on pathology, educating others.
- Ammianus Marcellinus gave credence both to Galen's chronology of the Antonine Plague (165–180) and to its effect.



Causes of disease 3

- Performed many successful diagnoses, e.g. a patient reported drinking unclean water & Galen accurately said that he had swallowed a leech.

- Said illnesses could be located in specific organs, so doctors could make accurate diagnoses and prescribe remedies to restore the body's balance.

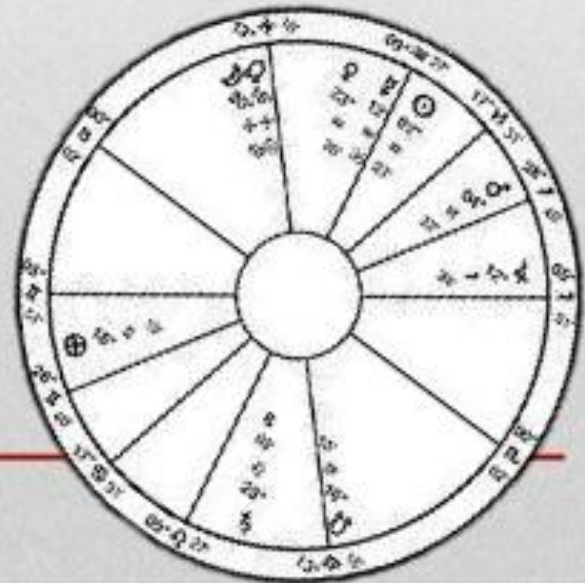


Insignificance – Causes of disease



- Also believed dreams were important in illness – wrote ‘On Diagnosis from Dreams’

- Galen consulted astrologers who drew up charts that supposedly showed which heavenly bodies were causing disease.



Anatomical Knowledge 1

- Made numerous progressions in knowledge of anatomy:
 - ☐ Advocated spinal cord importance
 - ☐ Proved brain controls speech
 - ☐ Noted how veins and arteries are structurally different
 - ☐ Proved urine is formed in kidney, not the bladder
 - ☐ Said blood nourished heart, lungs, brain & other organs
 - ☐ Distinguished 7 pairs of cranial nerves
- + more!

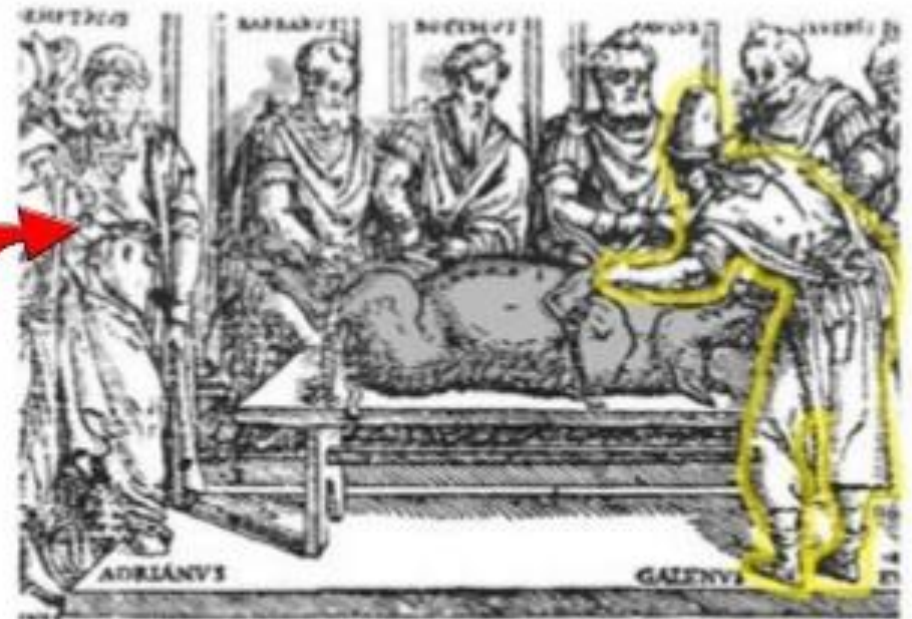
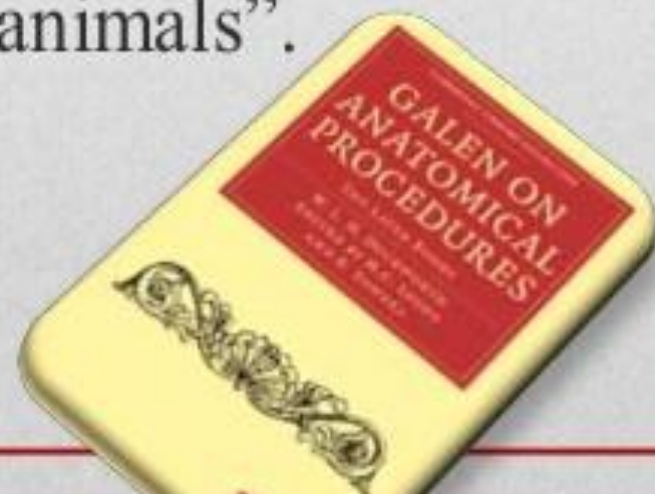


Fig. 2 Galen demonstrating the recurrent laryngeal nerve to the elders of Rome in the living pig. When the nerve was divided, the pig's squealing ceased and it became mute. From Galeni Librorum Quarte Classis. Venetijs Apud Iuntas, 1586

Anatomical Knowledge 2

- Passed on much knowledge - published over 300 articles and 9 books on anatomy – most complete encyclopaedia of medicine in the ancient world.
- John Scarborough: “[Galen was a] pioneer in his continual dissection and vivisection of animals”.

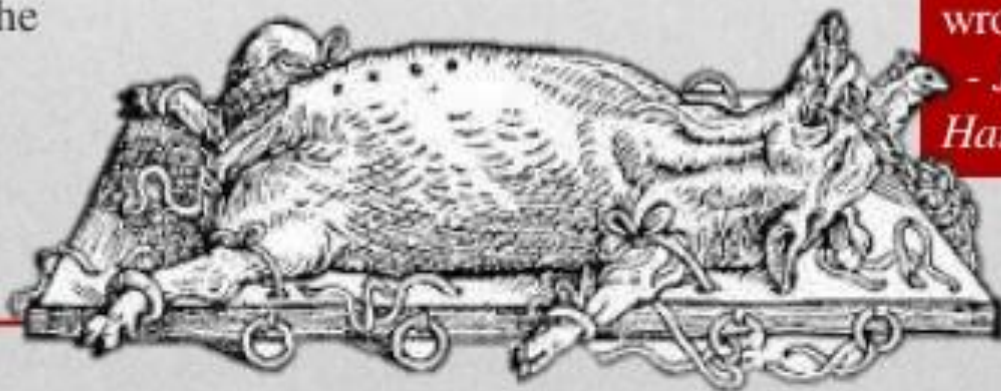


“His ideas were a base for the medical theories of later physicians ...important steps along the way to new understandings of science and medicine.”
- Jeanne Bendick

Insignificance – Anatomical Knowledge

- Wrong about 'ebb and flow' theory.
- Didn't discover circulation.
- Made up the idea that there 'openings' in the heart to fit his theoretical system of ebbing and flowing.
- Only dissected animals!
- Believed the spleen stored black bile, which was waste left over from the liver when it made blood.
- Wrongly believed that the spleen helped get rid of black bile.

BLACK BILE WAS
COMPLETELY
MADE UP SOLELY
TO FIT THE GREEK
THEORY THAT
EVERYTHING
CAME IN FOURS!



“Theories behind the Galenic school of medicine were so erroneous that it is an understatement to call them merely wrong.”

- James Hannam