Small tour guide

Museum of medical history
Antiquity

Greece: From the 8th to the 5th century BC, priests of Aesculapius (son of Apollo) practised medicine in shrines. Hippocrates (460-377 BC), founder of clinical medicine, laid the foundations of medical ethics.

Ancient civilisation with the most elaborated medicine.

The Gallic oculists removed cataracts and cured with elaborated eye washes.

The Middle-Ages

Doctors were recruited from amongst scholars and clerics. The brotherhood of Saint Côme’s surgeons was created by Jean Pitard (surgeon of Louis IX or Saint-Louis). Barbers performed low grade surgery.

16th and 17th centuries

Amputation knives

The anatomist Andreas Vesalius was the first to challenge Claude Galien’s authority and he published his « De humani corporis fabrica », the first real treatise of anatomy. The use of the clyster and of bloodletting became more and more frequent. The theory of humours governed medicine.

1686 marked a moral and social survival for surgeons. King Louis XIV, who suffered from a fistula in ano, was successfully operated on by Charles-François Félix. To have a fistula became in fashion at the Court!

The foundation of the Royal Academy of Surgery, in 1731, allowed the surgeons to separate themselves from barbers (same guild since 1660).
The revival of surgery was completed during this century. Surgeons and cutlers improved their skills. New methods of reasoning and of practising were developed, which would survive the upheaval of the French Revolution. The Revolution put an end, temporarily, to the College of surgery as well as to the teaching of medicine. Then, in 1794, Fourcroy asked for the reestablishment of medical and surgical teaching.

In 1808 the school of medicine, formerly the school of health, became the faculty of medicine. Guillaume Dupuytren (1777-1835), the most important surgeon of the century, established the Chair of Pathological Anatomy. Even before anaesthesia was invented, small operations, such as tooth extractions, the lancing of whitlows and the incision of cutaneous abscesses were carried out. Practitioners also operated successfully on cataracts, hernias, dislocations and fractures, and carried out trepanation.

Slowly, surgeons tended to specialize, like the « urologists », who were called lithotomists in the 17th century, because they performed the « taille » (cutting). In the 16th century, Jules des Romains put a catheter through the urethral duct and used it like a conductor to the bladder. This procedure will then be perfected in the 18th century.

In January 1824, Jean Civiale (1792-1867) performed the first successful lithotripsy on a living human being; an operation which consisted in extracting a bladder stone with a lithotriptor through natural channels and without a surgical operation.
The beginning of the 17th century saw the arrival on the scene of specialists, such as François Mauriceau (1637-1709). He stressed the importance of anatomical and physiological knowledge and published « Illnesses of pregnant and newly delivered women ». He described the « podalic manoeuvre », taught the importance of vaginal examination and was hostile to the idea of caesarean section. As for Jean-Louis Baudeloque (1746-1810) « the art of delivery is a practical art which can be brought to a geometrical certitude ». He recommended forceps and was all for caesarean operations. Antoine Dubois (1756-1837) perfected the curve of the forceps to avoid damage to the uterus. Doctors have always encouraged breast-feeding. But, when it was not possible, feeding-bottles were used. For a long time goat’s milk was favoured over cow’s milk.

Until the 18th century, otology consisted merely of extracting foreign bodies from ears. By 1707, with injections in the Eustachian tubes, deafness due to their obstruction was cured. In the 19th century, otologists were able to pierce the membrane. In the 18th century, a number of methods, such as excision, tearing, ligation and cauterisation were used to remove polyps in the nasal fossae. By 1820, four diseases of the larynx seemed of importance: croup, edemas, laryngeal tuberculosis and paralysis of recurrent nerves. For centuries, it was believed that catharral inflammation was due to a secretion of mucus in the brain. In the 20th century, oto-rhino-laryngology owed much to the Scool of Vienna. 1912 onwards saw the expansion of surgery in this field in Paris.

The trocars were used for punctures. Jean Louis Petit’s (1674-1750) trocar was composed of a round metal rod either straight or curved. The needle was contained in a silver caula or tube. Charles Pravaz (1791-1853) invented his silver syringe with a hollow needle in the middle of the 19th century.
The cataract operation

The operation to remove cataracts was practised in ancient times. In 1707, Charles de Saint-Yves (1667-1736) cut the cornea to remove the crystalline lens, but the ocular lens stayed in the posterior chamber. In 1745, Jacques Daviel (1696-1762) extracted the ocular lens by an incision in the cornea.

Xavier Bichat (1771-1802) perfected surgical anatomy and operating medicine. He also performed experiments and carried out research in normal and pathologic physiology. His work opened up new paths in histology and anatomy. Théophile Laennec (1781-1826) developed the anatomo-clinical methods initiated by Bichat. Above all, he became famous because he invented the « stethoscope » ». The bi-auricular auscultation is still used by doctors today.

In the 19th century, the rapid development of French medicine was due to the pre-eminence of the anatomo-clinical method. Together with percussion and auscultation, endoscopy led the way towards a new knowledge of diseases.
Antoine Van Leeuwenhoek (1632-1723) made microscopes with a magnifying power up to 270. He was the first to observe blood corpuscles and to notice that the muscles were striated.

Louis Pasteur (1822-1895) drew attention to numerous microorganisms responsible for animal and human sicknesses, thus building up the bacterial theory of infectious diseases. This theory when applied resulted in the use of asepsis and the introduction of vaccinations made from modified organisms as a method of prevention.

Lord Joseph Lister (1827-1912) demonstrated the antiseptic treatment of wounds with carbolic acid.

« Modern » anaesthesia with ether was discovered by two Americans, William Morton (1819-1868) and Horace Wells (1815-1848), both dentists. In France, Jean-Pierre Flourens (1794-1867) promoted the widespread use of surgical anaesthesia.
The history of medical diagnosis took a new turn in the second half of the 19th century. Examinations slowly ceased to be entirely clinical and began to be based on information derived from laboratory examination. The graphic recordings of Etienne Jules Marey (1830-1904) made possible the simultaneous notion of multiple facts: motion, changes of pressure in cavities...

Neurology

In 1882, when Jean Martin Charcot (1825-1893) presented his opening lecture in the chair of nervous diseases, created specially for him, it marked the beginning of a new discipline: neurology. Charcot established the basis of neurological nosography still in force.

Electricity and medicine

The Leyden jar, invented in 1746, allowed us to stock electric fluid. The electrical cauterisation was developed from 1843. Pierre Paul Broca (1824-1880) perfected this method by fitting to it Grenet’s battery which allowed a safer use of the sharp loop. The galvanocaustic knife, or electrical bisotoury would be invented in 1862. Electricity in medicine was mainly used for the treatment of mental disorders and skin diseases. Its use was very much in fashion between 1880 and 1920.

The arrival of electric lighting and of Edison’s miniature light brought about the use of endoscopy and of its by-products (hysteroscopy, gastroscopy). The optical principle of side vision, has always been recommended.

With the improvement of microscope lenses at the very beginning of the 19th century. The cell was discovered and also the notion that all tissues, either of animal or plant origin, were composed of cells. These two notions formed the basis of histology.

In the First World War surgeons employed x-ray machines to locate metal bullets, fragments, and shrapnel in wounds, and to make images of bone fractures. To reduce the risk of infection, surgeons had to be near the front, thus necessitating the creation of mobile radio-surgical teams. At the end of the war, no hospital could do without a radiological service.
Pharmacy and care

Nicolas Lemery (1645-1715) gave a lecture, in 1675, setting out his « directions for medical usage », as well as a long list of remedies for every human illness. The Chair of Pharmacy, created in 1696, was suppressed during the French Revolution and reopened in 1794. A breakthrough occurred in the 19th century when the active principles of drugs were isolated and when hypodermic injections and synthetic chemical substances came into use.

Sir Alexander Fleming's (1881-1955) discovery of penicillin revolutionised the pharmacopoeia.

Some « brayers » trusses (from the Gallic word « braie » or underwear) from the Raynal collection are shown here. Trusses varied depending on their use, either for inguinal, umbilical or femorale hernias, childhood’s hernias or those of old-age.

Hernia belt

Penicillin sample
Porcelain dentures

Dentistry

For centuries, extraction was the only way to relieve toothache. Dental forceps were the most frequently employed instruments, in addition to an elevator used to pull out loosened teeth. Until the 18th century, small sponges or toothpicks were used for everyday tooth care. The first toothbrushes were used in London in 1780.

Pierre Fauchard (1678-1761), was the first to make pivot teeth. He also enamelled dentures so as to restore teeth and gums to their natural colour.

Dubois de Chémant (1753-1824) created the first porcelain dentures, said to be « incorruptible » or impervious the decay.

The first dentist’s chair was invented in England, to provide more comfort for patients.
Most «idiot» children were taken in and locked up in various institutions and remained there for the rest of their lives, without proper care or attempts at treatment.

A method or a set of rules based on medico-pedagogical teaching will be introduced in the 19th century. The principles of this method were based on hygiene, the education of the senses and moral treatment. Edouard Seguin (1812-1880), Hippolyte Vallée (1816-1885) and Désiré Magloire Bourneville (1840-1909) would take an important part in the developing of this concept.

These instruments were invented to measure the characteristics of different sensory capacities. The laboratory of physiological psychology was established in 1889 by Louis Liard. Henri Piéron (1881-1964), would subsequently develop the laboratory and, in 1921, would found the Institute of Psychology.
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