Ambroise Paré's life (1510–1590): part I

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Abstract Ambroise Paré (1510–20 December 1590) was a French barber-surgeon who served in that role for Kings Henry II, Francis II, Charles IX and Henry III. Ambroise Paré is considered one of the fathers of surgery and modern forensic pathology; a pioneer in surgical techniques and battlefield medicine, especially in the treatment of wounds. He was also an anatomist and invented several surgical instruments.

There are five duties of surgery: to remove what is superfluous, to restore what has been dislocated, to separate what has grown together, to reunite what has been divided, and to redress the defects of nature.—
Ambroise Paré

At the beginning of the sixteenth century France was experiencing the beneficial results of the well directed efforts of Louis XI and his immediate successors to overcome the power of the great feudal houses and concentrate all government in the hands of the king. Francis I ascended the throne in 1515, although the Guises had tried to secure succession to the crown for their family through his grandchildren. The effort was a failure and when, at the close of the century Henry IV gained Paris by a mass, the Bourbon line was established to rule supreme until the Revolution. From the accession of Francis until the accession of Henry IV the country passed through some of the most remarkable episodes in its history. Cruel civil and religious wars, expensive foreign wars—accompanied by some barren successes but also by stupendous national disasters, especially that of Pavia in 1525, when Francis I and the flower of his nobility were defeated and made prisoners or slain. Sound projects of reform were counteracted by the worst political and religious persecution, and splendid projects for the prosperity of the land checked by wicked waste of public funds in debauchery and foolish prodigality to royal favourites.

Across the scene pass the figures of some of the noblest and some of the basest persons known to history. Catherine de Medici, the vile Italian, with her incredible bigotry, craft and wickedness; her three degenerate sons, Francis II, Charles IX and Henry III; the family of the Guises, able, unscrupulous, ready to sacrifice anything to fulfil their ambitions, anxious to destroy by any means, no matter how wicked, every Huguenot, and finally committing the frightful crime of St. Bartholomew in order that they might do so Admiral Coligny, the chief antagonist of the Guises, with his brothers; Anne de Montmorency, the harsh old soldier; Montaigne, the most human of philosophers; and Rabelais, the doctor and priest, who under the grossest sort of allegory, attacked abuses which he dared not touch otherwise. Living during this period Ambroise Paré is considered one of the fathers of surgery and modern forensic pathology and a pioneer in surgical techniques and battlefield medicine, especially in the treatment of wounds (Fig. 1). He was also an anatomist and invented several surgical instruments [1–4].

He was a French surgeon, born at Bourg-Hersent, near Laval, department of Maine, in 1510 and died 20 December 1590. He served as a surgeon's apprentice as a youth, probably rising around 4 a.m. every day to shave customers (surgeons and barbers worked together in those days), attend university lectures in Latin (a language he did not understand) and squeeze his studies in between any task his master gave him. It was Ambroise Paré's experience at the Hotel Dieu where he was permitted to serve as a surgeon to the French army and, thus, make many innovations during his long career. By the time Paré entered the Hotel Dieu, barber-surgeons were incorporated into the education system of the University of Paris. They could attend lectures on anatomy and surgery delivered by the faculty and could take the master-barber's examination to receive professional recognition from the faculty.

He was apprenticed to a barber at an early age, became barber-surgeon at the Hotel Dieu, Paris, surgeon in the army of Francis I (1536–1538) (Figs. 2, 3 and 4), re-enlisted on

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Fig. 1 Portrait of Ambroise Paré

Fig. 2 Portrait of Francis I

Fig. 3 Hotel Dieu Hospital at the time of Ambroise Paré

the reopening of hostilities (1542–1544) and in 1545 began the study of anatomy at Paris, under François-Jacques Dubois (Sylvius). He was appointed as a field surgeon by Marshal Rohan and in 1552 became surgeon to King Henry II (Fig. 5). In 1552, Paré was accepted into royal service of the Valois Dynasty under Henry II; in 1554 as a member of the Collège de St-Cosme he was exempt from taxation. He was however unable to cure King's Henry II's fatal blow to the head, received during a tournament in 1559 (Figs. 6 and 7). Paré stayed in the service of the Kings of France to the end of his life, serving Henry II and Francis II. In 1563, after the siege of Rouen, he became first surgeon and chamberlain to King Charles IX, later also serving Henry III and Catherine de Medici.

Fig. 4 A ward in the Hotel Dieu Hospital

Fig. 5 Portrait of Henry II

Yet the man considered the father of modern surgery did not enjoy the same esteem that surgeons do today. Because they were less educated and made a living using their hands, surgeons seemed somehow inferior to physicians, who practised “pure” medicine. When he published, Paré was often

Fig. 6 King Henry II's fatal blow to the head, inflicted during a tournament in 1559

Fig. 7 Henry II on his death bed

criticised by physicians for daring to write about topics beyond his area of specialisation.

Paré also introduced the ligation of arteries instead of cauterisation during amputation. The usual method of sealing wounds by searing with a red-hot iron often failed to arrest the bleeding and caused patients to die of shock. For the ligation technique he designed the “*Bec de Corbin*” (“crow’s beak”), a predecessor to

Fig. 8 Ambroise Paré's book

modern haemostats. Although ligatures often spread infection, it was still an important breakthrough in surgical practice. Paré detailed the technique of using ligatures to prevent haemorrhaging during amputation in his 1564 book *Treatise on Surgery*. During his work with injured soldiers, Paré documented the pain experienced by amputees which they perceive as sensation in the ‘phantom’ amputated limb. Paré believed that phantom pains occur in the brain (the consensus of the medical community today) and not in remnants of the limb.

Paré spent his life serving in the army in wartime and caring for the sick and poor of Paris during peaceful periods. After he had practised surgery long enough to prove himself, he also proved to be a shrewd businessman, acquiring several houses and providing well for his family. He had three children by his first wife and, after she died, six by his second wife. Several of the

children died young, however, and he did not leave a single son who survived into adulthood to carry on his work. Though he was unquestionably a man of strong faith as evidenced in his writings, his exact faith—Catholic, Protestant or convert—is unknown today.

According to Henry IV’s Prime Minister, Sully, Paré was a Huguenot and on 24 August 1572, the day of the St. Bartholomew’s Day Massacre, Paré’s life was saved when King Charles IX locked him in a clothes closet. He died in Paris in 1590 from natural causes in his 80th year. While there is evidence that Paré may have been sympathetic to the Huguenot cause, he seems to have kept appearances of being Catholic to avoid danger: he was twice married, was buried, and had his children baptised into the Catholic faith. On account of his humanitarian activity he was held in special regard among soldiers. His motto, as inscribed above his chair in the Collège de St-Cosme, read: “*Je g pansay et Dieu le guarist*” (“I treated him, but God healed him”). A monument was erected to him at Laval.

A collection of Paré’s works (he published these separately throughout his life, based on his experiences

Fig. 9 Book translation by Thomas Johnson

Fig. 10 Design of limb prostheses by Ambroise Paré

treating soldiers on the battlefield) was published in Paris in 1575 (Fig. 8). They were frequently reprinted, several editions appeared in German and Dutch, and among the English translations was that by Thomas Johnson (Fig. 9). Ambroise Paré contributed both to the practice of surgical amputation and to the design of limb prostheses (Fig. 10). He also invented some ocular prostheses, making artificial eyes from enamelled gold, silver, porcelain and glass.

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