

Dominique Jean Larrey: Napoleon's surgeon

This year marks the 250th anniversary of the birth, in 1766, of one of the greatest military surgeons, Dominique Jean Larrey. He was born in the little French Pyrenean village of Beaudéan, where his father was a humble cobbler. By the age of 13 years, Larrey had lost both his parents and was brought up by his uncle, Alexis Larrey, a surgeon in Toulouse. With him young Dominique served a 6-year apprenticeship. At the age of 21 years, Dominique walked the 360 miles to Paris to study under Pierre Desault, chief surgeon at that great depository of disease and pathology, the Hôtel Dieu.

In 1788, at the age of 22 years, Larrey spent a year in the French navy as assistant surgeon and sailed to Newfoundland, becoming familiar with scurvy, hypothermia and drowning in the dreadful weather conditions his ship encountered. By now, the French Revolution was brewing. On 14 July 1789, Larrey led a group of medical students in seizing arms from the arsenal at Les Invalides and taking part in the storming of the Bastille. He then assisted Desault in the care of the wounded from the fighting.

In 1792, Larrey joined the army as a medical officer, was assigned to the Army of the Rhine and posted to Strasbourg. The fighting here was his first experience of a serious military engagement. The regulations at that time stationed the ambulances and surgical staff a league (about 2.5 miles) in the rear of the fighting. This meant that a day or more might well elapse before the wounded could be transported to the surgeons; many died before they could reach help. This gave Larrey the idea of fully equipped ambulances and surgical staff going to the battlefield itself, providing immediate surgery and rapid evacuation. It would be some years before he could put his ideas into action.

Professor Harold Ellis is Emeritus Professor of Surgery, Guy's, King's and St Thomas' School of Biomedical Sciences, London SE1 1UL

In 1794, Larrey was posted to Spain, then at war with France, before being promoted to the post of Professor of Anatomy and Surgery at the new Army School of Surgery at Val-de-Grâce, still a military hospital today. Three years later, in 1797, he was summoned by Napoleon to join the army in Italy and to put into effect his plans for a mobile ambulance service.

Larrey designed light mobile ambulance wagons which could keep up with the troops and allow the surgeons to work on the battlefield. Each ambulance unit comprised about 340 men under a chief surgeon. The unit was split into three divisions, each under a first class surgeon, aided by two second class surgeons and there were a further 12 assistants of the third class. Each of the three divisions had eight two-wheeled and four four-wheeled vehicles, together with four ordinary transport wagons. Larrey decreed that priority of surgery would depend on the severity of the injury and not on the rank of the soldier, nor of whether the patient was friend or foe.

From now on, Larrey served in every one of Napoleon's major campaigns, operating on the field of battle, where he performed major operations including amputations at the shoulder and the hip. In 1798 he was surgeon to the expedition to Egypt. Here he dealt with an outbreak of plague and modified his ambulances by using camels instead of horses.

In 1804, Napoleon appointed himself Emperor and instituted the Legion of Honour. Larrey was among its first recipients and, at the same time, was appointed Inspector General of the Health Services of the Army.

On 24 June 1812, Napoleon crossed the River Neman in Lithuania with an army of 600 000 men, drawn from all over Europe at the beginning of the Russian campaign. Larrey served as chief surgeon to the Grand Army as well as chief surgeon to the Imperial Guard. Moscow was entered on 14 September. After failure of negotiations with the Russians, the disastrous retreat

commenced on 29 October. At the end of November, the disintegrating army reached the River Beresina, then partly frozen and filled with ice floes. The bridge had been destroyed by the Russians and a temporary pontoon bridge was erected by devoted French sappers; it was promptly jammed by mobs of soldiers and civilians. Larrey was recognized by the troops and his life undoubtedly saved because they manhandled him across to safety. Larrey walked the whole way back to Vilnius, leading rather than riding his horse, and doing what he could to organize his medical services; of his 826 original surgeons, only 275 survived.

Larrey's final military action was at Waterloo in 1815. Captured by the Prussians, he was about to be shot when he was recognized by a doctor who had attended Larrey's surgical lectures. Brought before the Prussian General Blucher, the general realized that Larrey had saved the life of Blucher's son when he had been wounded and captured. Larrey was forthwith well treated and sent on to Louvain to supervise the treatment of wounded French prisoners.

Larrey returned home after the war at the age of 49 years, only keeping his post as surgeon in chief to the Guards' Hospital. He turned down prestigious offers of appointments in Russia and Brazil. He travelled widely in mainland Europe and the British Isles, visiting hospitals and teaching. He wrote extensively of his experiences, including his 'Resumé de memoires Chirurgical' (1821) and 'Campagnes et Voyages' (1841). He retired in 1838 and died in 1842, aged 76 years. Larrey's heart is interred in the vault of the chapel of the military hospital of Val-de-Grâce and in its forecourt stands a splendid statue of that great surgeon.

He was delighted that his son, Hippolyte followed his father's footsteps and became a distinguished surgeon, seeing active service as surgeon to Napoleon III at the battles of Magenta and Solferino. **BJHM**

Conflict of interest: none.