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Medicine for Managers

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René Laënnec

René Laënnec is probably a name known to relatively few. He was a French physician, born in 1781 and whose principal medical claim to fame was the invention of the stethoscope and the examination, using it to improve diagnosis of disorders of the heart and lungs. He qualified in medicine at the University in Paris and developed the concept of sound as a diagnostic tool. He was a staunch Roman Catholic.

René Théophile Hyacinthe Laënnec was brought up by an uncle following the death of his mother when he was five years old. His uncle lived in Nantes and he moved in 1793 during the French Revolution.

Despite wishing to do medicine, he was discouraged from doing so by his father but fortunately, his uncle who was Dean of medicine at Nantes, encouraged him.

He subsequently went to Paris and studied anatomy under Guillaime Duypytren, a great and famous anatomist and he subsequently became Duypytren's assistant.

Laennec became a dedicated Roman Catholic. He was appointed personal physician to Joseph Cardinal Fesch, Napoleon's half brother and French ambassador to the Vatican.

During the Napoleonic wars, he was in charge of the medical wards at Salpêtrière Hospital in Paris, caring for wounded soldiers. When Napoleon was exiled he lost his ambassadorial role at Vatican city.

In 1816, he was appointed physician at the Necker Hospital. Whilst working there he invented the stethoscope.

In that year, whilst treating a young woman with chest and heart symptoms, he found his examination of her chest compromised because he could not feel anything on palpation and he felt it was not appropriate to place his ear on her chest (direct auscultation) because of her capacious bosom.

It is said that, whilst contemplating how to examine the woman, he had an epiphany.

He recalled from his youth children playing with hollow sticks, one child listening at one end whilst another could whisper or make a sound at the other end. The child who was listening could hear the sound clearly and amplified.

Laënnec wondered whether the same principle could be used to listen to the chest.

He also appreciated the amplification of sound because of his skill as a flautist.

He constructed a hollow wooden tube 25 cm long and 2.5 cm in diameter, which he used as the first monaural stethoscope.

He found that, using the device, he could clearly hear heart sounds and breath sounds.

He later refined the device to include funnel-shaped ends to assist in amplifying and hearing the sounds.

In 1819 Laënnec published a detailed dissertation on the use of the stethoscope and the variety of heart and lung sounds that could be heard through it.

He described pneumonia, pleurisy, tuberculosis and emphysema as well as a variety of heart sounds.

The work, *De l'auscultation médiate,* was translated into English in London in 1821.

The invention of the stethoscope made Laënnec renowned throughout Europe as a lecturer on chest diseases and the use of the instrument.

In 1822 he was appointed Professor of Medicine at the College of France and, the following year, became Professor at the Charity Hospital in Paris.

Because the stethoscope avoided the need to place the doctor's ear on the chest of the patient, it became known as the *mediate method* for auscultation (the listening to sounds from the heart, lungs or other organs).

Laënnec taught using dissections to show the relationship between examination and post mortem findings.

It took three-quarters of a century for the invention of rubber tubing to replace the original wooden end of the device and longer for binaural stethoscopes, with two earpieces to hear sounds in both ears at the same time.

Laënnec was a brilliant physician. His works were not confined to the chest.

He identified a form of cirrhosis of the liver, described melanoma and was the first to realise that melanomas produced metastatic spread, where cancer cells spread to other parts and other tissues of the body.

Sadly, two years after joining the Charity Hospital, he died, aged 45, in 1826 from a severe form of tuberculosis.

This was one of the conditions he had been instrumental in elucidating and using his own invention, his nephew, Mériadec Laënnec made the diagnosis.

He was later able to listen to his own chest and appreciate that he was dying.

He was a brilliant physician and a very religious man and medicine was deprived of his talents at a young age.

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