Reginald Fitz: father of appendicitis

This year marks the centenary of the death of the distinguished American pathologist, Reginald Heber Fitz, who coined one of the words most frequently used by both medical practitioners and the general public. At the meeting of the Association of American Physicians held in Washington in June 1886 he presented a paper on 'Perforating inflammation of the vermiform appendix with special reference to its early diagnosis and treatment'. In this Fitz states: 'As a circumscribed peritonitis is simply one event, although usually the most important, in the history of inflammation of the appendix, it seems preferable to use the term appendicitis to express the primary condition.'

This masterly study, based on a review of 257 cases of 'perforating inflammation of the appendix', demonstrated beyond doubt that abscesses in the right iliac fossa were in the main the result of inflammation of the appendix and not the result of pericaecal inflammation. Not only did he give a clear description of the pathological and, also (although a pathologist), the clinical features of appendicitis, but he also pointed out the advisability of surgical treatment:

'If, after the first 24 hours from the onset of the severe pain, the peritonitis is evidently spreading, and the condition of the patient is grave, the question should be entertained of an immediate operation for exposing the appendix and determining its condition with reference to its removal. If any good results are to arise from such treatment it must be applied early.'

The summary to his paper is as true today as when it was written: 'In conclusion, the following statements seem warranted; The vital importance of the recognition of perforating appendicitis is unmistakable. Its diagnosis, in most cases, is comparatively easy. Its eventual treatment by laparotomy is generally indispensable. Urgent symptoms demand the immediate exposure of the perforated appendix, after recovery from the shock, and its treatment according to surgical principles. If delay seems warranted, the resulting abscess, as a rule intraperitoneal, should be incised as it becomes evident.'

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An early advocate of Fitz's advice was Charles McBurney, surgeon in chief at the Roosevelt Hospital, New York, who also died 100 years ago and is the subject of next month's 'Anniversary' article.

It is surprising that such a common and obvious pathology should have been overlooked and misinterpreted by clinicians for so long, especially in view of the fact that inflammation of the appendix was clearly recognized by distinguished clinicians over the centuries. The first clear account was given by Lorenz Heister, Professor of Anatomy and Surgery at Helmstadt, in the Duchy of Brunswick. In 1755 he described an autopsy in which he found the appendix to be black and adherent to adjacent structures. On separating the adhesions it ruptured and 'discharged two or three spoonfuls of matter'. He concluded 'this instance may stand as proof of the possibility of inflammation arising and abscesses forming in the appendicula as well as in other parts of the body'.

Claudius Amyand, surgeon at Westminster Hospital and later St. George's Hospital, London, was the first to report removal of the appendix, or rather part of it, in 1736. This was the case of a boy of 11 years of age with a right scrotal hernia with an associated discharging sinus. Exploration revealed that the sac contained the appendix perforated by a pin. The terminal part of the appendix was amputated and the child recovered.

Occasional reports of necropsy findings of perforated gangrenous appendices followed and there seems little doubt that the pathological and clinical features of this condition would become well documented. However, in 1830, a Dr Goldbeck in Heidelberg published his graduation thesis in which he invented the term 'perityphlitis'. Without any good evidence, he postulated that irritation of the mucosa of the caecum caused inflammation of the overlying tissues.

This thesis was strongly championed by the famous Baron Guillaume Dupuytren of the Hôtel Dieu in Paris in his 'Lectures in Clinical Surgery', published in 1839, so that the meaningless terms 'typhlitis' and 'perityphlitis' passed into common use until the end of the 19th century. This in spite of the fact that other more discerning observers in the autopsy room, including Thomas Hodgkin, Richard Bright and Thomas Addison, all of Guy's Hospital, were correctly ascribing the clinical and pathological features of inflammation in the right iliac fossa to the appendix.

Indeed, the first successful incision and drainage of an appendix abscess was performed in 1848 by Henry Hancock, of Charing Cross Hospital, this in a 30-year-old woman in her eighth month of pregnancy. She developed acute abdominal pain and miscarried on the fourth day of her illness. On the 14th day she had a mass in the right lower quadrant and was desperately ill. Hancock drained the abscess, pus and gas escaped, and 2 weeks later two faecoliths discharged, which Hancock postulated had escaped from the perforated appendix. After this, the patient rapidly recovered. Hancock's advice, that drainage should be carried out 'in other cases of peritonitis terminating in effusion and which usually end fatally', was largely ignored for some 40 years.

Reginald Fitz was born in 1843 in Chelsea, Massachusetts. He graduated in medicine at Harvard and carried out a prolonged period of postgraduate study in Europe, under Rokitanski and Skoda in Vienna and Virchow in Berlin. By the age of 35 years he was appointed Professor of Pathological Anatomy at Harvard, becoming Professor of Medicine there at the age of 49 years. In addition to his work on appendicitis, he carried out equally important studies on the clinical and pathological features of acute pancreatitis. He died on 30 September 1913 in Brookline, Massachusetts at the age of 70 years. BJHM

Conflict of interest: none.

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