Diagnosis of Acute Appendicitis: Revival of an Old-Time Classic Fairy Tale?

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Historically, the first documented successful appendectomy was reported by **Claudius Amyand** (1680-1740) in 1736, who removed a perforated (by a pin) appendix located in the sac of a right scrotal hernia in an 11-year boy. In 1848 **Henry Hancock** (1809-1880) performed the first successful drainage of an appendiceal abscess. Eventually, experience in diagnosing and managing this new disease entity was growing. In 1886, **Reginal Fitz** (1843-1913) reported a case series of 257 patients with perforating inflammation of the appendix, noting in his summary: *"…Its diagnosis, in most cases, is comparatively easy. Its eventual treatment by laparotomy is generally indispensable.."* [1].

At this time, great advance in early diagnosis and treatment was due to two American surgeons: **Charles McBurney** (1845-1913) of New York described the "McBurney's point", namely the point of maximal tenderness in the right lower quadrant, and introduced the muscle-splitting incision which is still employed today; and **John Murphy** (1857-1916) of Chicago who described the regular sequence of symptoms in a typical case of appendicitis: pain around the umbilicus shifting to the right iliac fossa and accompanied by vomiting (Murphy's sequence) [1]. As surgical technique and anesthesia have improved, laparoscopic appendectomy is now considered as the gold standard for managing this old-time classic disease.

Despite the classic symptoms and signs leading every experienced clinician to the safe diagnosis of acute appendicitis, easy access to laboratory tests and imaging modalities in an aggressive medicolegal environment have driven the new surgeons to seek confirmation of diagnosis in simple or more complex laboratory indices and scores. The diagnosis of acute appendicitis in infants and young children can indeed be difficult, partly due to inability of these patients to describe their symptoms accurately and partly to the fact that atypical abdominal pain is common in childhood. Unfortunately, this nonspecific pain is usually attributed to other causes, such as acute gastroenteritis, delaying diagnosis until the appendix has ruptured [2]

In this issue, Kostakis and colleagues [3] studied retrospectively the role of white blood cell (WBC) and platelet indices as biomarkers in acute appendicitis in children. In addition to already used markers of inflammation, such as leukocytosis and increased neutrophil count and percentage, the authors of this study found that a neutrophil/lymphocyte ratio higher than 2.5 had diagnostic accuracy similar to that of the above parameters, and that a platelet distribution width lower than 12.4% showed high sensitivity and positive predictive value specifically in girls with uncomplicated appendicitis.

In attempts to revive an old-time classic such as acute appendicitis, it should be emphasized yet again that excellence in taking a full careful history and performing an accurate physical examination cannot be replaced by any laboratory markers/indices or clinico-laboratory-imaging scores. Early diagnosis of the acute abdomen in cases of acute appendicitis can be studied in old-time classic textbooks [4], where reading seems more or less like going through a familiar fairy tale…

References

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