

Interleukin 6 and Lipopolysaccharide Binding Protein - Markers of Inflammation in Acute Appendicitis

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Abstract

The rate of incidence of acute appendicitis is 12% in the case of male patients and 25% in case of women, which represents about 7% of the world population. The appendectomy rate has remained constant (i.e. 10 out of 10,000 patients per year). Appendicitis most often occurs in patients aged between 11-40 years, on the threshold between the third and fourth decades, the average age being 31.3 years. Since the first appendectomy performed by Claudius Amyand (1681/6 – 1740), on December, 6th, 1735 to our days, i.e., 270 years later, time has confirmed the efficiency of both the therapy method and the surgical solution. The surgical cure in case of acute appendicitis has proved to be acceptable within the most widely practised techniques in general surgery. The variety of clinical forms has reached all age ranges, which in its turn has resulted in a large number of semiotic signs. In the case of acute appendicitis, interdisciplinarity has allowed the transfer of concept and methodology transfer among many areas of expertise, aimed at a better, minute understanding of the inflammatory event itself. Acute appendicitis illustrates inflammation development at digestive level and provides for a diagnostic and paraclinical exploration which continually upgrades. The recent inclusion in the studies of the Lipopolysaccharide binding protein (LBP)-type inflammation markers has laid the foundation of the latter's documented presence in the case of acute appendicitis-related inflammation. Proof of the correlation between the histopathological, clinical and evolutive forms can be found by identifying and quantifying these inflammation markers. The importance of studying inflammation markers allows us to conduct studies going beyond the prognosis of the various stages in which these markers were identified. The present article shows the results of a 1-year monitoring of the inflammation markers' values for Interleukin-6 and Lipopolysaccharide binding protein (LBP)-types, both pre-op and 3-days post-op in the case of patients diagnosed with acute appendicitis in the Surgery Clinic IV of the Emergency University Hospital - Bucharest. The data collected have allowed us to correlate them with the selected parameters, and to draw the conclusions presented in this article.

Key words: acute appendicitis, lipopolysaccharide binding protein (LPS-BP, LBP), interleukin-6, pathology, acute phase proteins, correlations, acute inflammation, sepsis

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