Adhesive diseases in children. Prevention, diagnosis and treatment strategies

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Manuscript received May 21, 2020; revised manuscript July 22, 2020; published online February 22, 2021

Abstract

Background: The adhesive disease and its associated complications, caused by adhesive mechanical bowel obstructions, mainly related to genetic causes and disorders of cell homeostasis, is one of the major health problems due to its diverse impact on the growing organism.

Material and methods: The clinical study was conducted on a group of 50 children aged 1 month – 18 years old with abdominal adhesion disorders, complicated by bowel obstruction, following a surgical intervention. Apart from the assessment of the anamnesis, clinical, and imaging manifestations, traditional bio-humoral homeostatic imbalance markers, endotoxemia levels, associated complications, and comorbidities, the blood inflammatory and excessive fibrosis biomarkers were assessed at different clinical periods of the pathological process.

Results: A non-randomized pro- and retrospective study was carried out to assess the epidemiological, clinical and paraclinical, histopathological, evolutionary, preventive and treatment characteristics in order to determine the major complication triggers following a surgical intervention on the small intestine, colon, appendix or uterus, as well as to highlight their possible peculiarities in children.

Conclusions: This study completed the clinicians’ views on intraperitoneal adhesion pathophysiology, thus confirming the importance of the microbial factor, inflammatory mediators, activation of humoral systems due to organic cellular lesions, the extension of the inflammatory response, as well as the genetic factors depending on the acetylation phenotype in children.

Key words: children, adhesive disease, diagnosis, treatment.

Cite this article