

Clinical manifestations and complications of acute appendicitis in pediatrics: An analysis

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ABSTRACT

Childhood appendicitis can result in several serious complications that disable immediate medical attention and specialized care. Among them, the rupture of the appendix stands out, which can lead to peritonitis; the formation of abdominal abscesses; the possibility of sepsis, an environmentally fatal condition; the formation of abdominal adhesions after appendectomy; and postoperative complications such as bleeding and infection. Not only do these complications have a significant physical impact, but they can also affect the child's psychological and emotional well-being, causing anxiety and stress. Therefore, it is essential to consider the symptoms of appendicitis early and seek prompt medical attention to avoid serious complications and ensure proper recovery.

Keywords: Appendicitis, Childhood, Complications, Pediatric Surgery.



INTRODUCTION

Childhood appendicitis is a medical condition that affects the appendix, a small organ located in the cecum, part of the large intestine. This condition occurs when the appendix becomes obstructed, causing inflammation and infection in the organ.

The most common symptoms of appendicitis in children include sharp, severe abdominal pain, especially in the lower right side of the abdomen, fever, loss of appetite, nausea, and vomiting. However, it is important to note that younger children may have less specific symptoms, such as irritability and diffuse abdominal discomfort.

Diagnosing childhood appendicitis usually involves a thorough medical evaluation, including physical exams, laboratory tests such as a blood count, and imaging tests such as abdominal ultrasound. Early identification of the condition is crucial for proper treatment and to avoid serious complications.

The standard treatment for appendicitis is surgery to remove the inflamed appendix, known as an appendectomy. This procedure is performed to prevent rupture of the appendix and prevent further complications such as peritonitis, which is a serious infection in the abdominal cavity.

METHODOLOGY

This integrative literature review was conducted from January to March 2024 to analyze the main complications of appendicitis in pediatrics. The search for scientific articles was carried out in the databases of the journals SciELO and PubMed, as well as the Brazilian Society of Pediatrics. Descriptors such as "Childhood Appendicitis", "Complications" and "Pediatric Surgery" were used. The search covered the mentioned period, in order to address relevant studies published during this time interval.

The inclusion criteria defined for the selection of primary studies included articles published in Portuguese and English, available in full online, and directly related to the theme of appendicitis in childhood. The synthesis of the results of the integrative review will provide a comprehensive view of the prevalence of appendicitis in children and its complications.

RESULTS AND DISCUSSIONS

During surgery to treat childhood appendicitis, complications can arise that require medical attention and appropriate intervention. Some complications include:

Surgical incision infection: After surgery, the incision made to remove the appendix may become infected, manifesting as lesions, pain, swelling, and increased temperature in the operated area.



Intra-abdominal abscess: A collection of pus may form inside the abdominal cavity, called an intra-abdominal abscess, during or after surgery. In some cases, it is necessary to drain the abscess to treat the infection.

Intestinal obstruction: After the appendix is removed, internal adhesions can form in the abdomen, causing intestinal interference. This can lead to symptoms such as abdominal pain, bloating, vomiting, and difficulty having a bowel movement.

Postoperative peritonitis: Although rare, peritonitis can occur as a complication after appendicitis surgery. It is a serious infection in the abdominal cavity that requires immediate treatment to prevent serious complications.

Anesthetic complications: During surgery, anesthesia-related complications may arise, such as allergic responses, breathing problems, or a drop in blood pressure.

It is critical that healthcare providers are prepared to identify and treat these complications effectively, ensuring a safe recovery for children undergoing appendicitis surgery. Careful postoperative follow-up is essential to monitor any adverse developments and ensure a full recovery.

FINAL THOUGHTS

In the final considerations, it is crucial to highlight the importance of early diagnosis and proper treatment of childhood appendicitis to prevent surgical complications and promote a quick and safe recovery. The surgical complications mentioned, such as incision technique, abscess formation, intestinal interference, peritonitis, and anesthetic complications, can be serious but are usually preventable with a careful approach and diligent medical follow-up.

Healthcare professionals should be aware of the signs and symptoms of appendicitis in children and act promptly to make the correct diagnosis. In addition, proper postoperative follow-up is essential to monitor the progress of recovery and identify any complications that may arise early.

It is also important to emphasize the importance of educating and raising awareness among parents and guardians about the symptoms of appendicitis and the need to seek immediate medical attention when suspecting this condition. Knowledge and early attention can make a difference in preventing complications and promoting children's health.

In summary, when facing appendicitis in childhood, readiness for diagnosis, timely surgical treatment, and careful follow-up are critical to ensure a successful recovery and minimize the risks of surgical complications. Integrated, multidisciplinary care is essential for the well-being and safety of children affected by this condition.

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REFERENCES

- 1. CASTRO, B.A. et al. (2019). Impacto da posição do apêndice sobre o diagnóstico e tratamento de apendicite da infância. *Revista Paulista de Pediatria, 37*, 161-165.
- 2. FROTA, R.V.N.; MARINO, A.C.A.; DA COSTA, R.S.L. (2023). Apendicectomia: um estudo sobre diagnóstico e complicações em extremos de idade. *RECIMA21-Revista Científica Multidisciplinar-ISSN 2675-6218, 4*(11), e4114367-e4114367.
- 3. FRANÇA, W.M.; GALLETTI, R.P.; FERNANDES, V.O. (2016). Estudo retrospectivo das complicações da apendicite aguda relacionadas com a demora para o tratamento operatório. *Revista da Faculdade de Ciências Médicas de Sorocaba*, 99-99.
- 4. TAKESAKI, N.A. (2018). Apendicite aguda em pediatria: estudo clínico-epidemiológico e avaliação de marcadores laboratoriais de risco para gravidade. (Tese de Doutorado, [sn]).
- 5. MACHADO COSTA, A.; NEVES VASCONCELOS, C. (2017). Fístula enterocutânea como complicação de apendicectomia na adolescência: relato de caso. *Brazilian Journal of Surgery & Clinical Research, 18*(3).
- 6. YI, D.Y. et al. (2017). Precisão de tomografia computadorizada (TC) de baixa dosagem no diagnóstico de apendicite na infância e comparação com ultrassonografia e TC de dosagem padrão. *Jornal de Pediatria, 93*, 625-631.
- 7. VIEIRA, B. et al. Apendicite necrosante como complicação da varicela: relato de caso e revisão da literatura.
- 8. FERNANDES, B.C. et al. (2020). Critério de alvarado para diagnóstico de apendicite aguda infantil. *Revista Interdisciplinar em Ciências da Saúde e Biológicas, 4*(2), 75-87.
- 9. NUNES, M.C. et al. (2015). Apendicite aguda perfurada com complicações pós-operatórias: relato de caso. *Revista da Faculdade de Ciências Médicas de Sorocaba, 17*(Supl.).
- 10. FRANÇA, W.M.G.; DO PRADO PAES, J. (2017). Apendicite e pneumonia por translocação bacteriana e Síndrome de Loeffler em paciente pré-escolar. *Revista da Faculdade de Ciências Médicas de Sorocaba*.