



THE ROLE OF C-REACTIVE PROTEIN IN PREDICTING OUTCOMES OF TETRALOGY OF FALLOT IN YOUNG CHILDREN

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The study included 32 patients with Tetralogy of Fallot aged under 2 years. Elevated CRP levels (>10 mg/L)

ABSTRACT

Tetralogy of Fallot (TOF) is one of the most common and severe cyanotic congenital heart defects in children, requiring timely surgical correction. Postoperative complications remain a significant clinical challenge and negatively affect prognosis. Inflammatory processes, reflected by elevated levels of C-reactive protein (CRP), play a key role in the pathogenesis and may serve as prognostic markers for the risk of adverse outcomes..

Introduction

Tetralogy of Fallot (TOF) is one of the most common and severe cyanotic congenital heart defects in children, requiring timely surgical correction. Postoperative complications remain a significant clinical challenge and negatively affect prognosis. Inflammatory processes, reflected by elevated levels of C-reactive protein (CRP), play a key role in the pathogenesis and may serve as prognostic markers for the risk of adverse outcomes.

Materials and Methods

The study included 32 patients with Tetralogy of Fallot aged under 2 years. Elevated CRP levels (>10 mg/L), indicating active inflammation potentially associated with bacterial infection or a systemic inflammatory response, were detected in 19 patients (59.4%). The male-to-female ratio was 29:3 (9.7:1), confirming a pronounced male predominance of the disease.

Results and Conclusions

Elevated CRP levels observed in 59.4% of young children with Tetralogy of Fallot indicate a predominance of the inflammatory component in the clinical course of the disease and the development of postoperative complications following surgical treatment. This biomarker may be used for early identification of children at increased risk of adverse outcomes and for tailoring therapeutic strategies. Given the pronounced gender predominance, further investigation of potential sex-related differences in inflammatory responses and their impact on prognosis is warranted. Thus, CRP represents a promising biomarker for predicting clinical outcomes in young children with Tetralogy of Fallot.

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