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SPLENIC STRUCTURAL CHANGES AS A MORPHOLOGICAL INDICATOR OF SYSTEMIC IMMUNE INJURY IN NECROTIZING ENTEROCOLITIS

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Background

NEC is characterized not only by destructive intestinal lesions but also by systemic inflammatory and immune abnormalities. The spleen, as a major peripheral immune organ, may reflect the severity of systemic immune response in infants with NEC. In the dissertation, splenic pathomorphological changes were analyzed in the neonatal and postneonatal periods, and morphometric evaluation was also performed.

Objective

To determine the pathomorphological and morphometric characteristics of splenic tissue in infants with NEC at different postnatal ages.

Materials and Methods. Splenic tissue obtained during autopsy from infants under one year of age who died with NEC was examined. Patients were grouped according to age and NEC severity. Histological examination with hematoxylin and eosin staining, histochemical analysis, morphometry, and statistical processing were performed. The overall dissertation design included 200 NEC cases and 50 comparison cases.

Results

Structural changes in splenic tissue showed a progressive pattern associated with age and disease severity. Alterations involved the lymphoid component and reflected impaired immune organization in severe NEC. Morphometric analysis demonstrated that splenic changes could be objectively quantified and compared across age groups. These findings support the broader dissertation concept that NEC produces coordinated structural changes in several immune organs rather than isolated intestinal injury.

Conclusion

Splenic pathomorphological and morphometric changes may serve as additional indicators of systemic immune damage in NEC. Their assessment may improve the interpretation of disease severity and the understanding of thanatogenesis in fatal cases.





References:

1. Roberts A.G., Younge N., Greenberg R.G. Neonatal Necrotizing Enterocolitis: An Update on Pathophysiology, Treatment, and Prevention // Paediatric Drugs. 2024;26(3):259–275.
2. Blum L., Vincent D., Boettcher M., Knopf J. Immunological aspects of necrotizing enterocolitis models: a review // Frontiers in Immunology. 2024;15:1434281.
3. Niño D.F., Sodhi C.P., Hackam D.J. Necrotizing enterocolitis: new insights into pathogenesis and mechanisms // Nature Reviews Gastroenterology & Hepatology. 2016;13(10):590–600.
4. Hackam D.J., Sodhi C.P. Bench to bedside — new insights into the pathogenesis of necrotizing enterocolitis // Nature Reviews Gastroenterology & Hepatology. 2022;19(7):468–479.
5. Sampah M.E.S., Hackam D.J. Prenatal Immunity and Influences on Necrotizing Enterocolitis and Associated Neonatal Disorders // Frontiers in Immunology. 2021;12:650709.

