N-acetyl-β-hexosaminidase in chronic tonsillitis and tonsillar hypertrophy
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ABSTRACT
Background: The concentration and specific activity of N-acetyl-β-hexosaminidase (HEX) in palatine tonsils with chronic tonsillitis and tonsillar hypertrophy give insight in tonsillar tissue remodeling and constitute a potential marker for diagnosis and treatment of chronic tonsillitis and tonsillar hypertrophy. Aim: Determining the concentration and specific activity of N-acetyl-β-hexosaminidase in palatine tonsils with hypertrophy and chronic tonsillitis. Methods: HEX activity was analyzed by the method of Marciniak et al. with p-nitrophenyl N-acetyl-β-glucosaminepyranoside as a substrate. Results: The concentration and specific activity of HEX in palatine tonsils in patients with tonsillar hypertrophy and chronic tonsillitis both in childhood and adulthood significantly increase in comparison to healthy individuals. Conclusions: Our data demonstrate the presence of HEX in palatine tonsils and indicate on significant increase of its concentration and specific activity. Based on content and specific HEX activity we suggest that tonsils with hypertrophy and chronic tonsillitis should be treated as identical unit irrespectively of age.

Key words: N-acetyl-β-hexosaminidase (HEX), palatine tonsils, chronic tonsillitis, tonsillar hypertrophy