

RESPIRATORY TRACT AND OLFACTORY FUNCTION IN GRANULOMATOSIS WITH POLIANGITIS

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Granulomatosis with poliangitis (GPA) may damage all organs and systems, but most often it affects the upper and lower respiratory tract. Involvement of olfactory system in the course of GPA was reported only by several authors, although there is still little evidence concerning the character of chemosensory disruption. Possible mechanisms, part of which have been reported to alter olfactory performance, may include: paranasal sinus and nasal involvement, central and peripheral nervous system involvement, medication. The purpose of this study was to determine olfactory dysfunction, and to identify factors related to disease course, activity and duration. 43 patients with GPA were included in the study. The control group for the olfactory test included 21 healthy volunteers. Physical examination showed evidence of crusting in 47% of patients, as well as nasal septum perforation (30%), atrophy of nasal mucosa (16%) and saddle nose deformity (16%). Paranasal sinus computed tomography was analyzed for disease signs and their location. Inflammatory changes usually occurred in the maxillary sinus (72%) and its degree was measured using the Lund-Mackay system. Mean LMS value was 5.82 (median 4, SD 6.07). Statistical analysis showed that separate results for olfactory threshold, identification and discrimination scores in GPA were significantly ($p < 0.05$) decreased compared to the control group. Median TDI (threshold, discrimination and identification) score in the investigated group (27.5) was significantly lower than in healthy subjects (32) ($p = 0.002 < 0.05$). The comparison of olfactory function screening scores with Sniffin' Sticks standardized norms showed that 74% of investigated patients had olfactory dysfunction.