

Anatomical and clinical features of Mladina type 6 nasal septum deformation and its impact on speech and hearing performances

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Aim: The aim of this study was to detect the frequency of type 6 deformation overall compared to the results obtained by the conventional diagnostic method and to determine if there was a difference according to this deformation type in speech and hearing performances.

Methods: The study was performed at the Institute of Anatomy, where a total of 114 randomly selected skulls were scanned by the cone-beam technique (CBCT). The other group of 100 patients, 50 with and 50 without type 6 deformation was examined by ORL and speech therapists at the ORL HNS Department to determine if there was a significant deterioration in speech and hearing performances between those groups.

Results: There was a statistically significant difference ($p < 0.0001$) in the frequency of type 6 deformation as diagnosed by visual inspection (22.8%) and computed tomography (7.9%). No statistically significant difference was found between the two groups of patients with or without type 6 deformation in speech and hearing performances according to the patient's age and sex.

Conclusions: The frequency of type 6 nasal septal deformation was higher by visual inspection of the skulls than by CT imaging. Septal deformation type 6, probably have one-fourth to one-fifth people in the population, so the number of clinically overlooked and/or unrecognized types 6 was much greater than we thought it to be. According to a high frequency of those deformations, we explored if there was a deterioration in speech and hearing performances in those patients but we did not find significant difference according to the patient's age and sex.

Keywords: nasal septum, septal deformation, speech, hearing