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**EVALUATION OF ODONTOGENIC MAXILLARY SINUSITIS
USING CONE BEAM COMPUTED TOMOGRAPHY**

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Introduction. The maxillary sinuses are the largest para-nasal sinuses. Their sizes vary from one person to another. In persons with pneumatic type of sinus roots of teeth are closer to the floor of the sinus or inside it. And in such a case it can be a probable reason for infective-inflammatory diseases of the sinus with odontogenic etiology. Cone beam computed tomography (CBCT) is one of the most accurate method to determine maxillary sinusitis and there etiology.

Aim: the aim of this study was to observe the maxillary sinusitis cases among CBCTs and evaluate the odontogenic ones, to determine the causative teeth in a case of odontogenic etiology.

Materials and methods. CBCT images of randomly selected 100 patients of dental polyclinics in Minsk (69 males and 31 females between 19-65 years old) during the period 2012-2018 were analyzed. The number of the scans became 52 (32 males and 20 females) according to sinusitis pathology (increasing of mucosa thickening(MT)). The final number according to odontogenic etiology became 25 (20 males and 5 females).

All sinuses were evaluated in different views (panoramic, tangential, cross-sectional and axial).

All images were taken using tom Galileos GAX5 (Sirona Dental System, Bensheim, Germany) and analyzed by program GALILEOS Viewer.

Results. 200 hemisinuses were analyzed, 70 of them had sinusitis signs (MT increasing), among sinusitis cases 32 were with odontogenic causes, 38 were non-odontogenic and the rest 140 were healthy.

It was found that the most commonly affected maxillary teeth, in order, were the first molar (18 teeth), second molar (12 teeth), second premolar (6 teeth), third molar (1 tooth).

Conclusion. As the result of the study it was determined that the most common odontogenic sinusitis causative teeth were first maxillary molar and second maxillary molar because the palatal root of the maxillary first molar and mesiobuccal root of the second maxillary molar were inside maxillary sinus and were the foci of the odontogenic infection.