

## R-15. Maxillary sinus septa in Korean population: prevalence, location, morphology-a 3D CT scan analysis

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### 연구 배경

The objective of this study was to determine the prevalence, size, location, and morphology of maxillary sinus septa in dentate, partially dentate, and edentulous maxillae.

### 연구방법 및 재료

Reformatted computerized tomograms from 200 sinuses were analyzed utilizing ImagePro software. The sample consisted of 100 patients (41 women and 59 men, with ages ranging between 19 and 87 years and a mean age of 50 years) who were being treatment-planned to receive implant-supported restorations.

### 연구결과

The prevalence of one or more septa per sinus was found to be 53/200 (26.5%) in the total study population. A total of 59 septa were found in 200 maxillary sinuses (29.5%), which corresponded to 38% of the patients (38 of 100). Completely edentulous patients presented with 31.76% of the prevalence of septa, while 22.61% of the prevalence of septa were identified in partially edentulous patients. It was revealed that 15 (25.4%) septa were located in the anterior region, 30 (50.8%) were in the middle, and 14 (23.7%) were in the posterior region by analysis of the anatomic location of the septa within the sinus. Measurements of height of the septa varied among different areas. The lateral area ranged from 0 to 15.42 mm (with a mean of  $1.63 \pm 2.44$  mm), the middle area ranged from 0 to 17.09 mm (with a mean of  $3.55 \pm 2.58$  mm), and the medial area ranged from 0 to 20.18 mm (with a mean of  $5.46 \pm 3.09$  mm). A total of 25 septa (42.4%) were located in the immediate apical region of teeth. The remaining 34 septa (57.6%) were related to edentulous areas.

### 결론

Septa may arise in any of the 3 regions (anterior/middle/posterior) of the maxillary sinus irrespective of the degree of dentulism or edentulism present. To avoid complications during sinus augmentation

procedures, adequate and timely identification of the anatomic structures inherent to the maxillary sinus are required.

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