

CHARACTERISTICS OF MAXILLARY SINUS USING CONE BEAM CT**RAPEEPUN WINYUPAKORN 5636053 DTIM/M****M.Sc. (IMPLANT DENTISTRY)****THESIS ADVISORY COMMITTEE: BOWORN KLONGNOI, M.D.****RAWEEWAN ARAYASANTIPARB, Ph.D., SOONTRA PANMEKIATE, Ph.D.****ABSTRACT**

This retrospective study was based on the analysis of cone beam computed tomography (CT) images of the patients who visited the Oral and Maxillofacial Radiology Clinic, Faculty of Dentistry, Mahidol University. The sample population was 203 patients; 92 males and 111 females with a mean age of 46.6 years, ranging between 20 to 84 years. The aim of the study was to find and analyze the characteristics of maxillary sinus septa including prevalence, location, height and orientation.

The prevalence of maxillary sinus segments with septa was 32.75% (94 of 287 total sinuses) and 36.45% (74 of 203 patients). Thirty-one point three five percent (88 of 272) septa were detected in dentate/partially edentulous (PE) ridge whereas 40% (6 of 15) were found in completely edentulous (CE) ridge. There were no significant differences of the prevalence of septa between the two groups (PE & CE ridge). The anatomical location of septa demonstrated that 22% (22 septa) were located in the anterior region, 26% (26 septa) in posterior region, and a greater prevalence of 52% (52 septa) were in the middle region. Septa height measurement varied in different locations. The mean height of the septa was 5.87 ± 3.01 mm in the medial area, 5.15 ± 2.69 in the middle area, and 4.73 ± 2.51 in the lateral area respectively.

All surgical intervention in the posterior maxillary region require detailed knowledge of the patient's maxillary sinus and any anatomical variation such as the septa in order to determine the exact planning of surgery and to avoid unnecessary complications.

KEY WORDS: MAXILLARY SINUS SEPTA/ CONE BEAM CT/**DENTAL IMPLANT**

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