Mandibular premolars are the third most frequently impacted teeth, and needed panoramic radiography examination in order to determine the location, position and classify the teeth to support the diagnosis and treatment plan. The aim of this research is to obtain data and information about the position of permanent premolar impaction based on Stivaros and Mandall’s Classification by using digital panoramic radiographs in RSGM UNPAD.

The research method was descriptive. The sampling was purposive, the sample was taken from the Radiology Installation of RSGM UNPAD from 2013-2014, 115 samples obtained, comprised of 76 women and 39 men.

Based on the results, the percentage of premolar impaction from the age group of 15-19 was 5.22%, 20-44 with 91.30% and 45-59 with 3.48%. Furthermore, the incidence of unilateral premolar impaction were 90.43% whereas the incidence of bilateral premolar impaction were only 9.57%.

The conclusions of this study, by using the modified Stivaros and Mandall Classification, it can be concluded that mandibular first and second premolar impactions are prevalent in a position which the vertical height of premolar crown is above the level of the cemento-enamel junction (CEJ) of the adjacent premolar. Meanwhile, based on the premolar crown horizontal overlap, the impacted premolars that do not overlap with adjacent premolar are the most frequent.

Keywords: impacted mandibular premolar, Stivaros and Mandall’s classification, digital panoramic radiographs.
**ABSTRAK**

Premolar rahang bawah menempati urutan ketiga terbanyak mengalami impaksi dan memerlukan pemeriksaan radiografi panoramik untuk menentukan letak dan posisi gigi serta mengklasifikasikannya untuk menunjang diagnosis dan rencana perawatan. Tujuan penelitian ini adalah untuk memperoleh data dan informasi mengenai posisi impaksi premolar permanen rahang bawah berdasarkan klasifikasi Stivaros dan Mandall menggunakan radiograf panoramik digital di RSGM UNPAD.


Berdasarkan hasil penelitian, persentase impaksi premolar dari kelompok usia 15-19 adalah 5.22%, 20-44 dengan persentase 91.30% dan 45-59 dengan persentase 3.48%. Selanjutnya, kejadian impaksi premolar unilateral adalah 90.43% dan bilateral hanya dengan 9.57%.

Simpulan dari penelitian ini, berdasarkan klasifikasi modifikasi Stivaros dan Mandall, maka paling banyak ditemukan impaksi premolar pertama dan kedua mandibula dalam posisi tinggi vertikal mahkota premolar di atas cemento-enamel junction (CEJ) dengan premolar yang berdekatan. Sementara itu, berdasarkan overlap horizontal mahkota premolar, maka impaksi premolar yang tidak overlap dengan premolar berdekatan paling sering ditemukan.

Kata kunci: impaksi premolar rahang bawah, klasifikasi Stivaros dan Mandall, radiograf panoramik digital.

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