

Descriptive analysis of the image archive of Cone-Beam Computed Tomography exams from the Area of Oral Radiology at FOP/UNICAMP.

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Abstract

Cone-beam computed tomography (CBCT) is an imaging modality widely used in dentistry. The aim of this study was to make a descriptive analysis of CBCT examinations and compare with the panoramic radiographs obtained at the Dental School of Piracicaba (FOP), University of Campinas (UNICAMP) in 2015. Panoramic radiographs and CBCT exams obtained in 2015 at the Clinic of Radiology at FOP / UNICAMP were recovered and the information such as sex and age of the patient and date of the examination were obtained and compiled. Descriptive analysis for each imaging modality was performed and graphs were plotted to represent the patient profiles. The total number of patients in 2015 was 2531 (panoramics) and 641 (CBCT). The number of females was higher than the males for both imaging modalities. November and August were the months with the highest number of patients for panoramic and CBCT, respectively. January and December were the months with the lowest number of patients for panoramic and CBCT, respectively. Patients aged between 21 and 30 years were the most prevalent and between 81 and 90 years were the least prevalent for both imaging modalities. The Radiology Clinic at FOP/UNICAMP serves a large number of patients. The organization and characterization of the image archive of CBCT exams contributed to the knowledge of the patients' profile, as well as the recovery of specific clinical cases for future research.

Key words: Data sources, Radiology information systems, Cone-beam computed tomography

Introduction

Cone-beam computed tomography (CBCT) is an imaging modality widely used in dentistry for allowing an accurate tridimensional analysis of the jaws¹.

The aim of this study was to make a descriptive analysis of CBCT examinations and compare with the panoramic radiographs obtained at the Dental School of Piracicaba (FOP), University of Campinas (UNICAMP) in 2015.

Results and Discussion

The total number of patients in 2015 was 2531 (panoramics) and 641 (CBCT). The number of females was higher than the males for both imaging modalities. November and August were the months with the highest number of patients for panoramic and CBCT, respectively. January and December were the months with the lowest number of patients for panoramic and CBCT, respectively (Image 1). Patients aged between 21 and 30 years were the most prevalent and between 81 and 90 years were the least prevalent for both imaging modalities (Image 2).

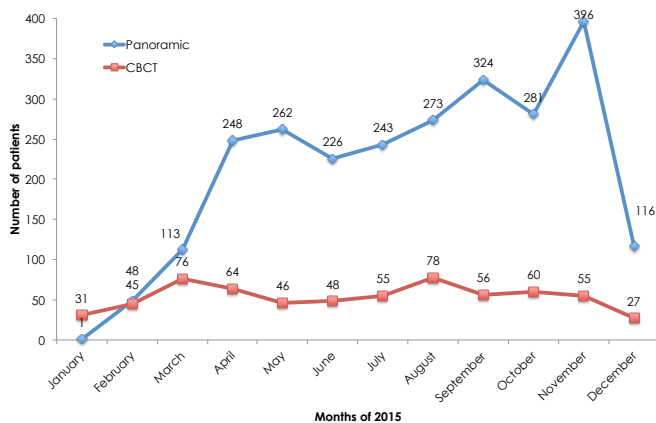


Image 1 Distribution of the number of patients in 2015.

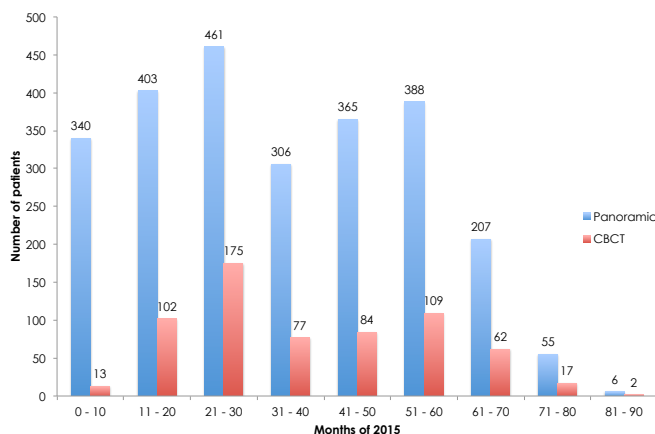


Image 2 Distribution of the number of patients according to age range.

Conclusions

The Radiology Clinic at FOP/UNICAMP serves a large number of patients. The organization and characterization of the image archive of CBCT exams contributed to the knowledge of the patients' profile, as well as the recovery of specific clinical cases for future research.

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¹ Bayrakdar, I. S.; Miloglu, O.; Altun, O.; Gumussoy, I.; Durna, D.; Yilmaz, A. B. Cone beam computed tomography imaging of poniculus posticus: prevalence, characteristics, and a review of the literature. *Oral Surg Oral Med Oral Pathol Oral Radiol.* **2014**, 118, e210-9.