

Conclusions. Obtaining a suitable osteochondral tissue for cartilaginous tissue engineering is very difficult because this process involves utilisation of a very toxic chemicals that harm this tissue. A shorter exposure period to chemical agents and preliminary modeling of the graft is mandatory. Also the OCDDT with 1% TritonX-100 shows the best results compared to others.

Key words: graft, osteochondral, demineralized, decellularized

268. THE VOLUME OF THE DENTAL PULP CHAMBER DETERMINED BY USING CONE-BEAM COMPUTED TOMOGRAPHY

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Introduction. Cone-beam computed tomographic (CBCT) imaging is a valuable tool in dental practice. It is widely used in endodontic treatment for the root canal morphology examination. Therefore, the purpose of this study was to use CBCT to calculate the volume of the pulp chamber at different tooth groups.

Aim of the study. of this study was to verify whether clinical use of CBCT imaging can accurately acquire parameters concerning molar pulp chamber landmarks, which are important data to help start a successful way to calculate the number of stem cells in the dental pulp.

Material and methods. This study conforms to protocols approved and in accordance with the ethics committee's requirements, informed consent was obtained from each patient. Morphologic measurements of 120 maxillary and 120 mandibular molars (from 40 patients, aged 18–45 years) were included in this study. CBCT images were taken using a Kodak 9500 (Dental Systems, Carestream Health) operated at 90 kVp with a voxel size of 300 μ m and a field of view of 90 \times 150 mm. All scans were taken following the manufacturer's recommendation protocol. According to the examination requirements, C-shaped roots, single-rooted molars, crowned teeth, and teeth with caries and/ or restorations violating the pulp chamber were excluded. All measurements were taken on the coronal plane view.

Results and discussion. In the present study, we used CBCT imaging to gather information regarding pulp chamber volume. With the scanned 3-dimensional images, we were able to clinically determine the pulp chamber parameters using a standardized and defined spatial approach.

Conclusions. The data we collected here serve as a proof of principle for the analysis of dental landmarks before collecting stem cells. In this particular study, existing CBCT scans were used to provide useful information that can be used as a guide for determine volume of the pulp chamber.

Key words: stem cells, cone-beam computed tomographic imaging, pulp chamber

269. GRAFTS OF THE CORNEA IN PEDIATRICS

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Introduction. Transplantation of the cornea in pediatrics remains a challenge. In 2008, Edward Wilson, from South Carolina, relates that the keratoplasty with the stem cell transplantation around the cornea induces the immune modulation and allows only a part of the cornea to be grafted and being more beneficial in the adults. All these advances improve the transplantation of