The difference of apical third of root canal cleanliness from debris after irrigation using a beveled needle and a side vented needle

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Cleaning of the root canal is an important part which will determine the success of root canal treatment. Cleaning is done by irrigating root canal with irrigant delivered by syringe and irrigation needle. Needle’s tip design can affect the result of root canal cleanliness after irrigation. Apical third of root canal is the most difficult part to be cleaned, especially if the irrigation was done by syringe and needle. The aim of this study was to find out the difference of apical third of root canal cleanliness from debris after irrigation using a beveled needle and a side vented needle. This study used 30 extracted upper central incisives as samples. The teeth were divided into two groups; each group of teeth was instrumented and irrigated with 2.5% NaOCl. The first group was irrigated using a beveled needle and the second group was irrigated using a side vented needle. Debris score from both groups were analyzed using independent t-test. Result of this study showed that the group that was irrigated using a side vented needle had a lower debris score (0.091) than the group that was irrigated using a beveled needle (0.117). Statistic test toward the mean of debris score resulted in P>0.05. In conclusion, there was no significant difference of apical third of root canal cleanliness from debris after irrigation using a beveled needle and a side vented needle.

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Melatonin application in indirect maxillary sinus lift for progressive immediate loaded one-piece dental implant: A case report

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Teeth replacement with dental implants is a concern in maxillary posterior region due to pneumatization of the maxillary sinus. Indirect maxillary sinus floor augmentation is one of the techniques to overcome this problem. Studies on animal models showed that topical application of melatonin hormone at the implant site preparation may enhance osseointegration of dental implants. Here we report a case of melatonin application after closed elevation of the left maxillary sinus lining and progressive loading of one-piece dental implant at a missing maxillary premolar. This implant was subjected to progressive immediate loading after 2 weeks of initial placement in a 23 years old female patient. Melatonin gel was injected into the osteotomy site after indirect maxillary sinus lift. The patient was recalled for follow up at 1, 3, 6 and 12 months post-loading. The implant was considered successful after 12 months of follow up. An increase in the residual ridge height was 0.9 mm. Changes in the marginal bone level and implant stability were within the acceptable limits for a successful implant. This is the first case study of an indirect sinus lift technique made with melatonin gel, as a graft material, in combination with progressive immediate loading of one-piece dental implant. After one year of follow up, predictable outcomes are evident in a patient with resorption of the posterior left maxilla due to sinus pneumatization.

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