

To evaluate and compare the clinical and radiographic efficiency of three root canal filling materials

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Abstract

Purpose: To evaluate and compare the clinical and radiographic efficiency of three root canal filling materials Sealapex, Calciur and Metapex for a period of 1, 3 and 6 months.

Materials and Method: In this randomized I trial, 40 teeth from 31 children aged 4-8 years requiring endodontic intervention, i.e, pulpectomy, were included. The children were divided into 2 groups: 1) Control Group (Zinc oxide eugenol; n=10); 2) Study group (n=30): Study Group A: Calciur (n=10); Study group B: Sealapex (n=10); Study group C: Metapex (n=10). A single sitting pulpectomy was carried out by a single examiner and results were evaluated at 1,3 and 6 months using Chi square test, Fisher exact test, Kruskal Wallis H Test and Mann-Whitney U test.

Results: Statistically no difference was found in regards to resolution of pain, periapical radiolucency and furcation involvement. However, the difference amongst the groups was significant in regards to the rate of resorption of material and failure rates in regards to filling patterns ($p < 0.05$). Overall, out of 38 cases 35 were successful, accounting for a success rate of 92.1%. The success rate of Control group was 88.9%, whereas Study groups A, B, C exhibited as success rate of 88.9%, 100%, 90% respectively.

Conclusion: All the materials showed comparable success rates (no statistically significant difference). However, Seal apex could be an alternative to the currently acceptable material of choice i.e. zinc oxide eugenol as obturating material for primary teeth.

Biography

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