

OUTCOME OF NON-SURGICAL SINGLE VISIT ENDODONTIC RETREATMENT IN TEETH WITH ASYMPTOMATIC APICAL PERIODONTITIS USING BIOCERAMIC SEALER (A RANDOMIZED CONTROLLED CLINICAL TRIAL)

Name: Sally Mohamed Nazir Saleh

Sample Statement

Sample size was estimated based on assuming confidence level= 95% and study power= 80%. The mean \pm SD periapical index after 6 months was estimated to be 2.27 ± 0.58 for the epoxy resin-based sealer (1) and 1.74 ± 0.99 for the bioceramic sealer. (2) Based on comparison between independent means using pooled SD= 0.78, a minimum sample size of 35 cases was required per group yielding an effect size of 0.679. This was increased to 36 cases to compensate for lost follow-up cases. Total sample size= Number per group x Number of groups = $36 \times 2 = 72$ cases.

Software

Sample size was based on Rosner's method (3) calculated by G*Power 3.1.9.7. (4)

References

1. Horhat RM, Bumbu BA, Orel L, Velea-Barta O, Cirligeriu L, Chicin GN, et al. Assessing the Sealing Performance and Clinical Outcomes of Endodontic Treatment in Patients with Chronic Apical Periodontitis Using Epoxy Resin and Calcium Salicylate Seals. *Medicina (Kaunas)*. 2023;59(6):1137.
2. Bardini G, Casula L, Ambu E, Musu D, Mercadè M, Cotti E. A 12-month follow-up of primary and secondary root canal treatment in teeth obturated with a hydraulic sealer. *Clin Oral Investig*. 2021;25(5):2757-2764.
3. Rosner, B. Fundamentals of biostatistics. Nelson Education. 2015.
4. Universität Düsseldorf. G*Power.2019. Retrieved from <http://www.gpower.hhu.de/>

Hams Abdelrahman; B.D.S, M.Sc



Assistant lecturer of Dental Public Health
Alexandria University
Tuesday, July 30, 2024

Maha El Tantawi; B.D.S, M.Sc, Ph.D



Professor of Dental Public Health
Alexandria University
Tuesday, July 30, 2024