
Vital Pulp Therapy: Indirect Pulp Therapy vs Pulpotomy. RAJ VIJ*, J. COLL, P. SHELTON. University of Maryland, Baltimore.

This was a retrospective study to assess the factors that affected the success of indirect pulp therapy (IPT) and formocresol pulpotomy (FP) treatment in primary molars and to compare their success rates in treating deep caries near the pulp.

Pediatric dentists in 3 private offices performed FP and IPT on 93 primary molars (40 FP and 53 IPT) between November 1996 and January 1999 and followed a minimum of one year with radiographs (mean 2.5 years). All had caries approaching the pulp. These 93 teeth were combined with 133 molars (78 FP and 55 IPT) previously published by Farooq et al. in 2000. The effect of type of caries control (CC), final restoration, and tooth were tested statistically with chi square on pulp therapy success.

IPT success was significantly ($p=0.01$) higher 94% versus FP success 74%. Forty-nine molars having glass ionomer CC 1-3 months before pulp therapy (FP or IPT) had significantly improved success ($p=0.05$) compared to 149 molars without CC (96% vs 82%). CC with IRM before pulp therapy was significantly inferior ($p=0.01$) to glass ionomer on subsequent pulp therapy success (67% vs 96%). Mandibular 1st primary molars exhibited a significantly ($p=0.01$) lower vital pulp therapy success (IPT or FP) versus other molars (73% vs 88%). A molar treated with vital pulp therapy and restored with a steel crown or a permanent filling succeeded equally (83% vs 87%) while ones treated with IRM had significantly lower success (39%).

IPT was significantly better than FP in treating deep dentinal caries. Caries control with glass ionomer 1-3 months prior to vital pulp therapy significantly improved success. Mandibular primary 1st molars fail more often than other molars when treated with vital pulp therapy. Pulp therapy success is not affected by placing steel crowns or permanent fillings afterwards but is adversely affected by IRM restorations.