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[\[Image PDF \(911K\)\]](#) [\[References\]](#)**Study on the Fracture Strength of Root Reconstructed with Post and Core: Alveolar Bone Resorbed Case**[Wataru KOMADA](#)<sup>1)</sup>, [Hiroyuki MIURA](#)<sup>1)</sup>, [Daizo OKADA](#)<sup>1)</sup> and [Keiichi YOSHIDA](#)<sup>1)</sup>

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**Abstract:**

This study evaluated the influence of alveolar bone level on the fracture resistance of root restored with post and core. Forty-eight extracted human mandibular premolars were divided into six groups. Cast posts and cores were cemented (MN8 and MP8) or resin cores were built up with fiber posts and composite resin (FN8, FP8, FN4, and FP4). Post length was 8 mm (MN8, MP8, FN8, and FP8) or 4 mm (FN4 and FP4). Specimens were embedded 2 mm (MN8, FN8 and FN4) or 5 mm (MP8, FP8 and FP4) below cement-enamel junction. All specimens were loaded at 45 degrees to the long axis until fracture. With normal bone model, cast post and core (MN8) showed the highest fracture resistance (2262.4 N). However, in the resorbed bone model, there were no significant differences in fracture resistance between cast post and core and fiber post with composite resin.

**Key words:**[Glass fiber post](#), [Alveolar bone](#), [Fracture strength](#)[\[Image PDF \(911K\)\]](#) [\[References\]](#)Download Meta of Article [\[Help\]](#)

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