Middle Mesial Canals in Mandibular Molars: Incidence and Related Factors

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**Aim**
- To evaluate the incidence of MM canals in 1st & 2nd MAN molars.
- To correlate the incidence of MM canals with molar type, sex, age, ethnicity, and presence of a 2nd distal canal.

**Materials & Methods**
- 75 MAN 1st & 2nd molars were included in this study.
- Following access preparation and complete instrumentation of the main canals (35/04), the mesial root was examined for any isthmuses to negotiate a MM canal.
- If a negotiable MM canal was located, the canal was enlarged to a small size (30/04).
- The no. of MM canals was recorded for sex, ethnicity, age of the patient at the time of treatment, molar type (1st or 2nd MAN molar), and presence/absence of a second distal canal.
- The classification of Pomeranz et al was used to identify the type of the MM canal:
  - **Confluent:** MM has a separate orifice but joins with one of the main canals (MB or ML)
  - **Independent:** separate orifice and separate apical foramen
  - **Fin:** MM is connected with one of the main canals along the entire canal
- Statistical analysis was performed to compare the incidence of MM between different groups.

**Results**
- A negotiable MM canal was located in 20% of the cases
- No significant difference in the incidence of MM canal with patient’s sex, ethnicity, molar type or presence of a 2nd distal canal.
- Among the located MM canals:
  - **Confluent:** 46.7%
  - **Independent 20%**
  - **Fin:** 33.3%

**Conclusion**
- The prevalence of MM canals in MAN molars was found to be higher than previously reported.
- Patient’s age significantly affect the incidence of locating a MM canal.

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