ABSTRACT

Objectives & Aims: Canine impaction is one of the anomalies that should be considered by clinicians in detail. The aim of this study was to determine the incidence, prevalence, patterns & potential distribution of impacted maxillary canine teeth stratified by gender, location (RT or LT), unilateral or bilateral. This study also aims to evaluate the possible relationship between impacted maxillary canines with large dentigerous cyst in maxilla.

Methods: The study was carried out in the department of Oral & Maxillofacial surgery. Patients were referred from oral medicine, radiology department with the symptom of swelling, pain, discharge or missing canines & retained deciduous canines. After examination of panoramic radiographs & clinical symptoms diagnosis was made, associated symptoms like pain, swelling, number, localization (RT/LT) age & sex, retained deciduous teeth, root resorption of adjacent teeth was also noted.

The included sample consisted of 100 patients diagnosed with canine impactions / transmigrated canines on clinical examination & panoramic radiographs. Age ranged from 18 to 50 years. 59.61% females 40.38% males. 60.22% maxilla, 46.70% mandible. 63.17% unilateral, 36.3% bilateral.

Conclusion: The early detection of impacted maxillary canine teeth is crucial for successful treatment, therefore demographic studies are important & should be managed to prevent complications.

KEYWORDS

Impacted teeth, Transmigrated canines, Dentigerous cysts, Root resorption
Results
The included sample consisted of 100 patients diagnosed with canine impactions canines on clinical examination & panoramic radiographs. Age ranged from 18 to 50 years. 59.61% females 40.38% males. 60.22% maxilla, 46.70% mandible. 63.17% unilateral, 36.3% bilateral. (bar graph 1) 54% were associated with dentigerous cysts & 46% were diagnosed on routine radiographic examination (bar graph 2).

Discussion
Canine plays a very important role in functional occlusion, appearance on the corner of mouth for aesthetic purpose, food tearing etc. But because of eruption pattern & sequence canine are more prone to impaction & should be considered by the clinician in detail.

AS found in literature & because of eruption pattern & sequence canine are more prone to impaction & Maxillary canine are affected 20 times more frequently than mandibular canines as stated by Rohrer et al. In the present study also 592 (60.22%) canine impaction were in maxilla &319 (46.7%) in mandible Chu et al reported this ratio to be 6.14.

Few studies in literature stated that impacted maxillary canine had not been observed migrating across the palatal midline suture. Only few cases of maxillary transmigrated teeth have been reported by other authors. No case of transmigrated canine was seen in maxilla like in present study no case of transmigrated canine is reported in maxilla.

Canine impaction was found more on left side than right as reported in studies by (Peck, 1998; Mupparapu, 2002; Camilleri & Scerri, 2003; Shapira & Kufinec, 2003;) In the present study same findings were noted 56.2% on left side, 43% right side impacted canines were reported.

Females have been reported to have more impacted & transmigrated canines than males. Our study also found more females having impacted canine teeth than males, 586 were females & 397 were males (59.61%, & 40.38%). Shapira & Kufinec, 2003.) (Aydin et al 2004) found that males are more affected than females.

Unilateral migration of impacted canine is more common (Greenberg & Orlian, 1976; O Carroll, 1984; Broadway, 1987; Peck, 1988; Rabellato & Schabel, 2003; Shapira & Kufinec, 2003; Auluck et al., 2006, Buyukkurt et al 2007; Summer et al, 2007)

Nodine (1943) & Ando et al (1964) reported that impacted canines often do not produce any apparent symptoms contrary to the present study all the impacted canine reported with symptoms like facial swelling, pus discharge, pain, cyst formation. The present study was in accordance with studies of teeth (Mupparapu, 2002; Gonzalez–Sanchez, 2007; Aydin U, Yilmaz, 2004; Peterson LJ Principles, 1988; Peterson LJ;) who reported a No of patients complaining of pain, infection, cyst formation fistulisation, tumors, resorption of adjacent teeth.

The aetiology & exact mechanism with regard to transmigration is not clear, (Camilleri & Scerri, 2003). It has been suggested that canine transmigration is congenital (Peck, 1998). While Ando et al, (1964; Shapira, & Kufinec, 2003;) suggested possibility of transmigration may be due to retention or premature loss of primary teeth, crowding, spacing, supernumerary teeth & excessive crown length of mandibular & maxillary canines. Sometimes transmigration is a result of local pathology like cysts, tumours & odontomes.

Besides Tumours cysts & odontomes may cause malposition of teeth if they lie in the path of eruption. Al–Waheidi (1996) suggested that canines were usually associated with a cystic lesion & that the presence of a cyst at crown of canine might facilitate migration process.

Management options for impacted canine include surgical removal, transplantation; surgical exposure with orthodontic alignment.
Conclusion
The early detection of impacted maxillary canine teeth is crucial for successful treatment, therefore demographic studies are important & canine impactions should be diagnosed & managed in early stages to prevent complications.

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References: