Original Research Article **Pediatric Dentisty**

International Journal of Pharma and Bio Sciences **ISSN 0975-6299**

AWARENESS AND KNOWLEDGE AMONGST DENTAL PRACTITIONERS ABOUT NATAL AND NEONATAL TEETH AND ITS MANAGEMENT IN CHENNAI - A CROSS-SECTIONAL STUDY

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ABSTRACT

This study was carried out to assess awareness, knowledge and method of management of natal and neonatal teeth amongst dental practitioners. Among 250 dentists 200 dentists from all dental specialties, across Chennai participated in this cross sectional questionnaire based study. Demographic details such as age, qualification, years of practice, specialty, type of practice and other objective oriented details such as type of teeth i.e. natal and neonatal teeth observed, and knowledge about natal and neonatal teeth and its preferred method of management were collected. We observed that out of the 200 dentists 73% of the dentists observed the natal the neonatal teeth. Around 49% of them know the most common complication and 69% are sure to refer to pediatric dentist for management. We concluded that the observation of natal and neonatal teeth was increasing among dentist and they have sufficient knowledge about the natal and neonatal teeth.

KEYWORDS: **Natal teeth, Neonatal teeth, Dental practitioners, Chennai**

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INTRODUCTION

One of the current guiding principles of dentistry is to provide early full infant care during the first year of life as a way of maintaining oral health. For this, it is necessary to know the dental needs occurring at this age in order to opt for more preventive conduct. Child development from conception through the first years of life is marked by many changes. Tooth eruption at about 6 months of age is a milestone both in terms of functional and psychological changes in the child's life and in emotional terms for the parents.[1] The expectations about the eruption of the first teeth are great and are greater when the teeth appear early in the oral cavity. On this basis, when teeth are observed at birth or during the first 30 days of life, it is known as natal and neonatal teeth, respectively. These teeth also stimulate the interest of health professionals because of their clinical characteristics, among them their great mobility, which raises concern about the possibility of their being swallowed or aspirated by the infant during nursing.[2]Parents often assume that dental professionals have adequate knowledge about infant oral health and will refer children before it becomes irreversible. Even though they are the first health professionals in contact with parents and infants, they are not adequately informed about natal and neonatal teeth and do not appropriately refer children with dental disease. They treat the presenting complaint and provide various reasons to prioritize children for special interventions in oral health .Children are dependent upon their families and cannot advocate for themselves and adult oral health is directly proportional to infant oral health. The present study was conducted to evaluate the knowledge and attitudes of dental practitioners towards infant natal and neonatal teeth; and to propose ways to strengthen the incorporation of infant oral health and prevention of oral diseases in children into clinical dental education.

MATERIALS AND METHODS

This study was conducted between November 2015 and January 2015. After ethical committee approval from institutional review board (STP/SDIVBDS74) Saveetha Dental College and Hospitals, Chennai, a semi-structured and pre-coded questionnaire was distributed among 250 dentists to collect data. Among 250 dentists 200 dentists from all dental specialties, across Chennai participated in this cross sectional questionnaire based study. Demographic details such as age, qualification, years of practice, specialty, type of practice and other objective oriented details such as type of teeth i.e. natal and neonatal teeth observed, and knowledge about natal and neonatal teeth and its preferred method of management were collected. After explaining the nature and procedure of the study to the dentists, informed consent was obtained from them. Comparison of data for assessing knowledge about the natal and neonatal teeth was analyzed with SPSS 19.0 version. To find significance between the collected variables Chi square test was used. In the above statistical tools the probability value $P<0.05$ is considered as significant level.

Table 1
Demographic details

NUMBER OF DENTAL PRACTITIONERS INVOLVED IN STUDY	200
AVERAGE YEARS OF EXPERIENCE	EARS
NUMBER OF DENTAL PRACTITIONERS HAVING PRIVATE PRACTISE	07
NUMBER OF PEDIATRIC DENTISTS INVOLVED IN STUDY	56

Table 2
Response distribution of the dentists to the various questions

QUESTIONS	OBSERVATIONS			
IF NATAL OR NEONATAL TEETH OBSERVED	Yes		NO	
	147 (73%)		53 (27%)	
TYPE OF TEETH OBSERVED	Natal Teeth		Neonatal Teeth	
	89		58	
COMPLICATIONS	Aspiration Of Mobile Teeth	Pain During Eruption	RigaFede Disease	Feeding Difficulties
	42	25	36	97 (49%)
TREATMENT PLANNING	Extraction	Conservative Method	Referral to Pedodontists	
	46	16	138 (69%)	

p value calculated using chi square test.

RESULTS

In this study, 200 dental practitioners participated. On average, their working experience was 9 years. Out of 200 dental practitioners, 107 have regular private practice. Also, 56 pediatric dentists were part of this study. These details have been summarized in table 1.Out of 200 dentists involved in the study, 147 had observed natal or neonatal teeth, which is about 73% of dentists involved in this study and 53 dentists had not observed such case in their practice. Out of 147 dentists involved in this study, who had observed cases of natal or neonatal teeth, 89 practitioners had observed cases of natal teeth and 58 practitioners had observed cases of neonatal teeth. Out of all dental practitioners observed in this study, most of them (49%) felt that most common complication of natal and neonatal teeth was feeding difficulties faced by the mother. This would affect the overall nutrition and health status of the infant in its initial years of life. Most of the dental practitioners (69%) who took part in study felt that best treatment planning can be decided by the pediatric dentists, who are specialized to treat infant's oral needs.

DISCUSSION

The normal eruption of the primary teeth typically begins at six months of age. As defined by Cunha et al. teeth present in infant at time of birth are natal teeth and those erupting within 30 days of life are neonatal teeth and they are benign conditions.[3] Whatever the conditions they are, both of them considered as early eruption of primary teeth. Spouge et al. believe that the terms natal teeth and neonatal teeth constitute a relatively artificial distinction. Therefore, they have suggested that the terms mature and immature are more in keeping with the varying prognoses associated with such teeth in clinical point of view.[4] According to Seminario et al. the incidence of natal teeth ranges from 1:2000 to 1:3500 live births.[5] The exact etiology is unknown. Cunha et al. cited that infection, febrile states, trauma, malnutrition, superficial position of the tooth germ, hormonal stimulation and maternal exposure to environmental toxins has been implicated as the causative factor.[3] Also, Gladen et al. previously reported that heavily exposures to polychlorinated biphenyls and dibenzofurans caused to born infants with natal teeth in Taiwan.[6] In our study dental practitioners felt that eruption of natal and neonatal teeth can be genetic. Zhu et al. also reported similar findings of positive familial history in about 8-62 % of natal teeth cases.[7] In our study subjects felt that most commonly mandibular primary incisors are affected. In study carried out by Zhu et al. the most commonly affected teeth are the mandibular primary central incisors (85 %), followed by the maxillary incisors (11%), mandibular canines and molars (3 %), and maxillary canines and molars (1 %).[7] This was similar to findings in our study. We have discussed about various complications like aspiration of mobile natal and neonatal teeth, feeding difficulties, riga-fede disease and pain during eruption in infants. Similar complications were discussed by Zhu et al. in their study.[7]According to Zhu et al. most prematurely erupted primary teeth are mobile because of limited root development. Some teeth may be supernumerary or mobile to the extent that there is danger of displacement of the tooth and possible aspiration. In such cases the removal (extraction) of the tooth is indicated. However, they did not find any reported cases of aspirated natal or neonatal teeth in the literature. In some cases sharp incisal edge of the teeth may cause sublingual ulceration of the infant (Riga-Fede disease) or laceration of the mothers' breasts. If the teeth with rough edges are not hypermobile or not supernumerary; smoothing the sharp incisal edges of teeth or the placement of round smooth composite resin over the incisal edges is indicated. However if these teeth do not interfere with breastfeeding or not hypermobile, no intervention is necessary.[7]When various treatment plans were discussed in our study, dental practitioners felt that consultation with pediatric dentists could provide best treatment plan for better health care of infants. According to MacBurney and Young,[8] consultation with a pediatric dentist is strongly recommended in order to evaluate the preferred treatment and for differential diagnosis. Eruption of teeth during the neonatal period causes fewer problems. These teeth can usually be maintained even though root development is limited. Thus consultation with pediatric dentist is absolutely necessary to frame a treatment plan.[8]

CONCLUSION

The observation of natal and neonatal teeth was increasing among dental practitioners from all specialities and they had sufficient knowledge about natal and neonatal teeth. They were also sure that referral to pedodontist is strongly recommended for managing the natal and neonatal teeth.

ACKNOWLEDGEMENT

We would like to thank the dentists who participated in the study

CONFLICT OF INTEREST

Nil.

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