

“Shark Teeth” Like Appearance among Paediatric Dental Patients

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Abstract

Objective: Mixed dentition is a period between primary and permanent dentition burden with numerous anomalies. This study was undertaken to determine the prevalence and characteristics of paediatric dental patient presenting with “shark teeth” like appearance.

Methods: This study was a prospective study of paediatric patients attending the outpatient dental Clinic of Central Hospital Benin, Edo State, Nigeria with “shark teeth” like appearance. Interviewer-administered questionnaire which elicited information that included age, gender, presenting complaints and involved deciduous and permanent teeth was the tool of data collection.

Results: A total of 62 patients out of 842 child patients seen over this period presented with two rows of teeth giving a prevalence of 7.4% (62/842). The age of the patients seen with two rows of teeth was 4-14 years with a mean age of 6.71 ± 2.20 years. The majority of the patients were aged between 4 and 7 years with the peak age of 5 years. The majority (88.7%) of the patients were first born and of Hausa ethnicity. The leading presenting complaints among the patients were mobility (33.9%), double teeth (29.0%), new teeth coming behind old one (19.4%) and embarrassing appearance (11.3%). About three-quarters (72.6%) of the patients had it on their mandible. More than two-thirds were unilateral with single deciduous teeth involved in 66.2%. About one-third (30.6%) had bilateral involvement of permanent teeth. The main treatment requested and offered was extraction.

Conclusion: Data from this prospective study revealed that double row of teeth is a relative common reason for dental clinic attendance among male and female children aged between 4 and 14 years.

Key words: Two rows, mixed dentition, paediatric dental patient

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I. Introduction

Eruption of permanent teeth is important for the growing children to help them obtain good nutrition from their diet which may lead to both good health status and aesthetics. Eruption of permanent teeth which usually occurs between four and seven years, starts with the exfoliation of deciduous teeth in most children.¹ Typically, permanent teeth erupt directly underneath deciduous teeth by directly resorbing the root of deciduous tooth, causing it to become mobile and exfoliate. However, the permanent tooth may not erupt directly underneath the deciduous tooth so the root of the deciduous tooth will remain intact leading to two rows of teeth called “shark teeth” appearance because sharks are known to have two rows of teeth in their mouth. The more labial row is made up of exfoliating or retained deciduous while the more lingual row is made up of the erupting or erupted permanent teeth.

Two rows of teeth can occur anywhere in the mouth but is commoner in the lower arch especially in the anterior region. This prevalent nature in the anterior region makes it to look scary and also elicits so much concern even when it is easy to treat. The two rows of teeth is more likely to occur at two different periods of oral development in children. The first is usually at about six years during eruption of permanent lower incisors and the second period is around 11 years old during eruption of permanent upper molars.

When there is two rows of teeth, assessment of the mobility of deciduous teeth is done, if the deciduous tooth/teeth is/are very mobile, the child is encouraged to wiggling the tooth/teeth out, if it is not mobile or slightly mobile, the dentist assistance in form of the extraction is deemed necessary. After extraction of the deciduous teeth, tongue will naturally push the permanent teeth forward into the correct position for proper alignment of the dentition. The occurrence of two rows of teeth is actually very common with about 30 percent of children experiencing two rows of teeth sometime in their life and is a source of concern for the parent of affected children.² Although, the two rows of teeth is common, it is usually transient and do not usually require professional consultation. However, relatively little or no information is available in the literature on two rows of teeth. The objective of this study was to determine the prevalence and characteristics of paediatric dental patient presenting with “shark teeth” like appearance.

II. Materials And Methods

This study was a prospective study of paediatric patients attending the outpatient dental clinics of two health facilities in Benin-City, Edo State, Nigeria between December, 2008 and April, 2017. All the children with two rows of teeth during the study period were included in the study while those that had trauma, caries and other pathologies involving the anterior deciduous teeth were excluded. Interviewer-administered questionnaire which elicited information that included age, gender, birth rank, ethnicity, presenting complaints, involved deciduous and permanent teeth, and treatment rendered was the data collection tool. Informed consent was obtained from the parents/guardians of the children. The data were analyzed using IBM SPSS version 20.0. Statistically significant was set at $P < 0.05$.

III. Results

A total of 842 children were seen over the study period with 62 of them reporting with two rows of teeth giving a prevalence of 7.4%. The age rangewas 4 to 14 years. The majority of the patients were aged between 4 and 7 years with the peak age as 5 years (Table 1). The majority (88.7%) of the patients were first born (Table 1)and of Hausa ethnic group (33.9%) (Table 2).

Table 1: Age and birth rank of the patients

Characteristics	Male n (%)	Female n (%)	Total n (%)
Age (years)			
4	1 (3.3)	6 (18.8)	7 (11.3)
5	7 (23.3)	8 (25.0)	15 (24.2)
6	7 (23.3)	7 (21.9)	14 (22.6)
7	3 (10.0)	3 (9.4)	6 (9.7)
8	3 (10.0)	5 (15.6)	8 (12.9)
9	4 (13.3)	1 (3.1)	5 (8.1)
10	2 (6.7)	2 (6.3)	4 (6.5)
12	2 (6.7)	0 (0.0)	2 (3.2)
14	1 (3.3)	0 (0.0)	1 (1.6)
Birth rank			
First born	27(90.0)	28 (87.5)	55 (88.7)
Others	3 (10.0)	4 (12.5)	7 (11.3)
Total	30 (100.0)	32 (100.0)	62 (100.0)

Table 2: Ethnicity of the patients

Ethnicity	Male n (%)	Female n (%)	Total n (%)
Bini	4 (13.3)	6 (18.8)	10 (16.1)
Efik	0 (0.0)	1 (3.1)	1 (1.6)
Hausa	11 (36.7)	10 (31.3)	21 (33.9)
Ibo	6 (20.0)	10 (31.3)	16 (25.8)
Esan	1 (3.3)	1 (3.1)	2 (3.2)
Kwale	1 (3.3)	0 (0.0)	1 (1.6)
Ogoni	0 (0.0)	1 (3.1)	1 (1.6)
Ora	3 (10.0)	0 (0.0)	3 (4.8)
Ikwere	1 (3.3)	2 (6.3)	3 (4.8)
Urhobo	1 (3.3)	0 (0.0)	1 (1.6)
Yoruba	2 (6.7)	1 (3.1)	3 (4.8)
Total	30 (100.0)	32 (100.0)	62 (100.0)

Table 3: Presenting complaint of the patients

Complaints	Male n (%)	Female n (%)	Total n (%)
Abnormal growing teeth	1 (3.3)	0 (0.0)	1 (1.6)
Delay in old tooth/teeth falling off	1 (3.3)	0 (0.0)	1 (1.6)
Double teeth	11 (36.7)	7 (21.9)	18 (29.0)
Embarrassing appearance of teeth	2 (6.7)	5 (15.6)	7 (11.3)
Mobile tooth/teeth	12 (40.0)	9 (28.1)	21 (33.9)
New tooth/teeth coming behind the old ones	2 (6.7)	10 (31.3)	12 (19.4)
Old tooth/teeth has not fallen off	0 (0.0)	1 (3.1)	1 (1.6)
Unusual position of tooth/teeth	1 (3.3)	0 (0.0)	1 (1.6)
Total	30 (100.0)	32 (100.0)	62 (100.0)

The leading presenting complaints among the patients were tooth/teeth mobility (33.9%), double teeth (29.0%), new teeth coming behind old ones (19.4%) and embarrassing appearance (11.3%). About three quarters (72.6%) of the patients had it on their mandible (Table 3). Figure 1 depicted some of the cases.



Figure 1: Patten of the double rows of teeth among the patients

Table 4: Arch, deciduous and permanent teeth involved among the patients

Characteristics	Male n (%)	Female n (%)	Total n (%)
Arch			
Mandible	23 (76.7)	22 (68.8)	45 (72.6)
Maxilla	7 (23.3)	10 (31.3)	17 (27.4)
Deciduous teeth			
/A	7 (23.3)	6 (18.8)	13 (21.0)
/B	3 (10.0)	5 (15.6)	8 (12.9)
A\	5 (16.7)	9 (28.1)	14 (22.6)
B\	4 (13.3)	2 (6.3)	6 (9.7)
A A	6 (20.0)	9 (28.1)	15 (24.2)
A AB	1 (3.3)	0 (0.0)	1 (1.6)
BA\	2 (6.7)	0 (0.0)	2 (3.2)
BA AB	2 (6.7)	1 (3.1)	3 (4.8)
Permanent teeth			62 (100.0)
/1	8 (26.7)	6 (18.8)	14 (22.6)
/2	2 (6.7)	5 (15.6)	7 (11.3)
1\	5 (16.7)	9 (28.1)	14 (22.6)
1 1	6 (20.0)	9 (28.1)	15 (24.2)
1 12	1 (3.3)	0 (0.0)	1 (1.6)
2\	4 (13.3)	2 (6.3)	6 (9.7)
21\	2 (6.7)	0 (0.0)	2 (3.2)
21 12	2 (6.7)	1 (3.1)	3 (4.8)
Total	30 (100.0)	32 (100.0)	62 (100.0)

When single deciduous tooth was involved, the left central incisor (21.0%) were less involved than right central incisor (22.6%) the left lateral incisor (12.9%) were more involved than right lateral incisor (9.7%). A total of 66.2% involved a single tooth. The 4 deciduousincisors were involved in 4.8% of the cases (Table 4).

Table 5: Treatment among the patients

Treatment	Male n (%)	Female n (%)	Total n (%)
Number of extractions performed	25 (83.3)	22 (68.8)	47 (75.8)
Number of patients that accepted counsel	5 (16.7)	10 (31.3)	15 (24.2)
Total	30 (100.0)	32 (100.0)	62 (100.0)

Three-quarters (75.8%) of the patients had extraction on the dental visit. It was observed that 8 out of the 47 patients that had extraction, has previously had extraction of other deciduous teeth because of the listed complaints (Table 5).

IV. Discussion

The dentition period where there is mixture of deciduous teeth and permanent teeth is known as mixed dentition and it is burdened with numerous anomalies. Although, the two rows of teeth is common, it is usually transient and do not require professional consultation. This prospective study was carried out to determine the prevalence and characteristics of paediatric dental patient seeking care for two rows of teeth. The majority of the patients were between 4 and 7 years which is tandem with the period of eruption of anterior permanent teeth. It can be stated that two rows of teeth in the anterior maxillary and mandibular region is a dentition anomaly in the early mixed dentition stage. The fact that permanent incisors erupt between 4 and 7 years among Nigerian children make this anomaly more likely around this age.¹ About one-third of the patients were older (8-14years) which may be due to delayed presentation for dental problems in Nigeria, ignorance and poor awareness of seeking dental care. The females were slightly more affected than the males which is in consonance with more dental anomalies reported in females³ and this also confirms the girl child more professional attention seeking for retained deciduous teeth and anterior arch crowding than the boys.⁴ This however contrasted with Onyeaso⁵ report of more retained deciduous teeth in males than females. The difference may be due to the inclusion of adults in the compared study.⁵ It was interesting to note that for the majority, these were first borns. The care and attention to first child in relation to hospital visitation in comparison with other children may have a bearing on this finding. This may be due to inexperience, less confidence and uncertainty of the eventual outcome of the condition that trigger the care seeking behaviour or may be due the more attachment and observant of the health of the first child. The burden of worry from the aesthetic and embarrassing presenting complaints may have triggered early presentation.

About three-quarters (72.6%) of the patients had it on their mandible which tallied with earlier eruption of mandibular than maxillary teeth. Single deciduous tooth was involved in 66.2% of cases, the left central incisor (21.0%) were less involved than right central incisor (22.6%) the left lateral incisor (12.9%) were more involved than right lateral incisor (9.7%). More than two-thirds (69.4%) of the patients had unilateral involvement of deciduous teeth which contrasted with higher bilateral presentation of the retained deciduous incisor than unilateral presentation reported by Onyeaso.⁵ The bilateral presentation of permanent teeth consisted only 4.8%. The main treatment offered which was demanded by the parents or guardians was extraction. Extraction has been highlighted as a common treatment requested by care seekers in secondary health facilities in developing countries⁶ and the tooth mobility being the common feature favoured extraction also. However, the mothers/guardians were counseled against extraction of the tooth where necessary.

V. Conclusion

Data from this prospective study revealed that double rows of teeth is a relative common reason for dental clinic attendance among male and female children aged between 4 and 14 years.

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