

Table 4: Multiple Comparisons of teeth eruption in delay among facial index by age using Games-Howell.

Dependent v				v	
Upper delay	6-9 years	Hypereuro	Eury	0.556	0.0012
			Meso	0.256	0.56955
			Lepto	0.394	0.20175
		Eury	Meso	-0.3	0.24297
			Lepto	-0.162	0.72787
			Meso	0.3	0.24297
		Meso	Eury	0.3	0.24297
			Lepto	0.138	0.91211
Lower delay	10-13 years	Hypereuro	Eury	0.852	0
			Meso	0.235	0.59356
			Lepto	-0.424	0.68592
		Eury	Meso	-0.617	0.0037
			Lepto	-1.277	0.0266
			Meso	-0.659	0.3612
		Lepto	Eury	-0.659	0.3612
T delay	6-9 years	Hypereuro	Eury	0.665	0.0292
			Meso	0.374	0.52862
			Lepto	0.361	0.56618
		Eury	Meso	-0.291	0.65079
			Lepto	-0.303	0.62946
		Meso	Lepto	-0.013	0.99997
	10-13 years	Hypereuro	Eury	1.285	0.0005
			Meso	0.56	0.4035
			Lepto	0.339	0.9529
		Eury	Meso	-0.725	0.10558
			Lepto	-0.946	0.46898
		Meso	Lepto	-0.222	0.98574

Early teeth eruption among different facial types by age

The mean value of accelerated teeth eruption for both age groups with different face type showed in Table 5. Euryprosopic face type shows the highest percent of accelerated teeth eruption in upper and lower jaw for

both age groups while the least percent of accelerated teeth eruption were hypereuryprosopic face type. The statistical difference among different groups was significant. Except for lower jaw from 6-9 years age group and upper jaw from 10-13 years age group.

Table 5: Descriptive and statistical test of teeth eruption in early among age and facial index.

Vars.	Age	Facial index								F	P value
		Hyper euro		Eury		Meso		Lepto			
		Mean	SE	Mean	SE	Mean	SE	Mean	SE		
Upper early	6-9 years	0	0	0.379	0.112	0	0	0.2	0.138	5.175	0.002
	10-13 years	0.143	0.052	0.308	0.071	0.243	0.077	0	0	1.6	0.19
	Total	0.095	0.035	0.333	0.061	0.17	0.054	0.133	0.093	4.256	0.006
Lower early	6-9 years	0.082	0.057	0.138	0.067	0	0	0	0	1.2	0.312
	10-13 years	0	0	0.269	0.067	0	0	0	0	9.305	0
	Total	0.027	0.019	0.222	0.05	0	0	0	0	9.229	0
T early	6-9 years	0.082	0.057	0.517	0.165	0	0	0.2	0.138	3.708	0.013

10-13 years	0.143	0.052	0.577	0.089	0.243	0.077	0	0	7.493	0
Total	0.122	0.04	0.556	0.082	0.17	0.054	0.133	0.093	10.467	0

Table 6 showed significant relation in age group 6-9 years between euryprosopic and mesoprosopic face type while in age group from 10-13 years show significant

relation between all different groups except between hypereuryprosopic and mesoprosopic.

Table 6: Multiple pairwise comparison of Total early teeth eruption among facial index. Using Games-Howell.

Age	Groups	MD	P value	
6-9 years	Hypereuro	Eury	-0.436	0.07043
		Meso	0.082	0.48777
		Lepto	-0.118	0.85638
	Eury	Meso	0.517	0.0144
		Lepto	0.317	0.45869
		Meso	-0.2	0.4837
10-13 years	Hypereuro	Eury	-0.434	0.0003
		Meso	-0.1	0.70038
		Lepto	0.143	0.037
	Eury	Meso	0.334	0.0259
		Lepto	0.577	0
		Meso	0.243	0.0114

DISCUSSION

Dental eruption has particularities depending on: Population group, gender, dental arch and also facial type.

The relation between the facial forms and the dental arch forms had been studied by different authors. Tsunori et al. [19] found that the long face pattern included a narrow dental arch, while the short face pattern had wide arch. Graber [20] found that leptoprosopic individuals have narrow dental arches, while euryprosopic individuals have broad, round dental arches. Mesoprosopic individuals fit somewhere in between these two.

Studies have shown that there is a wide range in the facial morphological typology, with the ethnic Hungarian population in vojvodina (Serbia) having a mesoprosopic facial type predominating [21], the leptoprosopic facial type predominating in the central region of Serbia [22], the Kosovo Albanian population having a hyper leptoprosopic facial type predominating [23], The majority of the Croatian population has a mesoprosopic face type [24].

This Iraqi study found the most prominent face shape (EuryProsopic) (162) child in a percentage (36.4%) while the least prominent face shape was (leptoProsopic) (30) child in a percentage of (6.74%) this variation in face shape between these studies may be related to racial/ethnic variation.

Kjaer in 2014 suggested that the mechanism of eruption depends on the eruption course created by crown follicle, hypothesis behind this theory depend on many factors. Space in the eruption path were the most important factor.

In this study there were (233) child with delayed teeth eruption which represent the highest percent followed by normal eruption of teeth in (152) child and the least percent were the early eruption of permanent teeth in (60) child.

From the result of this study the normal eruption of permanent teeth were highest in children with euryprosopic face shape with a significant statistical relation. The least percent of normal eruption of teeth were in children with leptoprosopic face type. This may be due to the space available in dental arch recent studies Graber [25] found that leptoprosopic individuals have narrow dental arches, while euryprosopic individuals have broad, round dental arches. Mesoprosopic individuals fit somewhere in between these two. That's lead us to explanation that children with euryprosopic face type which have broad, round dental arch have enough space for teeth eruption. While leptoprosopic face type which have narrow dental arch that limit the space available for normal eruption of permanent teeth.

CONCLUSION

The children in Baghdad have a dominant euryprosopic facial type. Children with euryprosopic face shape (broad

face) have normal and accelerated teeth eruption more than leptoprosopic face type (narrow face).

In order to ensure the balanced development of the dental occlusion, mandible and faces as whole, preventative and interceptive orthodontic therapies that use the facial type can be helpful.

To identify the dynamics of tooth eruption in connection to facial characteristics, more research must be done on bigger population samples. The gathered information is crucial for the analysis of intra- and inter-population differences, which are relevant to anthropology, forensic medicine and therapeutic practice.

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