A Comparative Study of Facial Index of Women of Qyamkhani Muslims and Rajputs Community of Hanumangarh District of Rajasthan

Shabina[1], Shabnam[2]

[1]PhD Scholar, SMS Medical College & Hospital Jaipur (Rajasthan), India

[2]PhD Scholar, SMS Medical College & Hospital, Jaipur (Rajasthan)m India
Email address: *shabinakhan2359[a]gmail.com*

Abstract: *The facial index is length from the root of nose to the root of bottom of chin, expressed as a percentage of the greatest breadth across the cheek bones. Facial differences are much more marked in relation to face than elsewhere, so it is very useful anthropologically. For these 22 women of Qyamkhani Muslims and 21 women of Rajputs Community between the age group of 18-40 were taken and their facial index was calculated and compared to each other. The result indicated that average facial index in Rajputs women (95.58± 2.09) was higher than Qyamkhani Muslims women (93.75 ± 2.70).Mostly they were Hyperleptoprosopic and Leptoprosopic. Average facial height (cm)in Qyamkhani Muslims women and Rajputs women were 11.15 ± 0.69 and 11.67 ± 0.45 and average breadth (cm) is 11.89 ± 0.69 and 12.23 ± 0.49.*

Keywords: Facial height, Facial breadth, Facial index, Leptoprosopic and Hyperleptoprosopic

1. Introduction

Craniofacial anthropometry, as an important part of anthropology and medicine, is used for the determination of the morphological characteristics of head and face. Face shape depends on many factors, such as gender, race and ethnicity, climate, socio-economic, nutritional and genetic factors.The determination of facial parameters is of great importance for the evaluation of facial trauma, congenital and traumatic deformities and easier identification of certain congenital malformations[1]. Facial dimensions are among important cephalometric results that have been used to describe racial and sexual difference[2-3].Present study was conducted on 43 subjects out of them 22 subjects of Qyamkhani Muslims and 21 subjects of Rajputs community aged 18-40 years in 2015.The present study carried out to establish and compare the facial index of women of Qyamkhani Muslims and Rajputs communities of Hanumangarh districts of Rajasthan.

2. Material and Method

The present study was conducted at the department of anatomy, S.P. Medical College & associated group of hospitals, Bikaner (Rajasthan).This study incorporated 43 subjects out of them 22 subjects of Qyamkhani Muslims and 21 subjects of Rajputs community aged 18-40 years in 2015.

Facial height was taken from nasion, to the point just above the median plane to mention, the point on the lower surface of mandible in median sagittal plane by using sliding caliper.

Facial breadth (Bizygomatic Daimeter) was taken by spreading caliper. The tips of spreading caliper were placed over the zygometic arches.

Facial index was calculated by using the formulas-

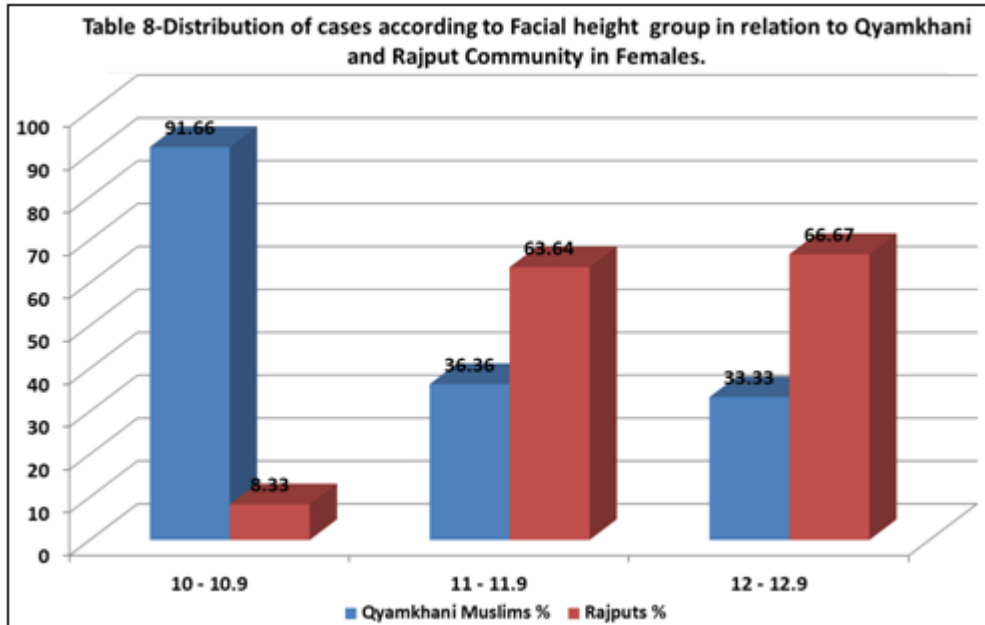$$Facial\ Index = \frac{Face\ height}{Bizygomatic\ diameter} \times 100$$

3. Results & Discussion

Facial index is a very useful anthropologically. With facial index one can easily find out racial differences therefore the present study was conducted on 43 subjects of 18-40 age group including 22Qyamkhani Muslims individuals and 21Rajaputs individuals for following parameters:

1) **Facial height (c.m.) of subjects -**On statistical analysis, Mean Facial height in Qyamkhani Muslims community group (female) was 11.15±0.69 while in Rajputs community (female) it was 11.67±0.45 and comparison were statistically significant (p<0.05).

Communities	Qyamkhani Muslims women	Rajput's women
Facial height (c.m.) Mean±S.D.	11.15± 0.69	11.67± 0.45
p value	0.006	
tvalue	-2.912	

Table 8-Distribution of cases according to Facial height group in relation to Qyamkhani and Rajput Community in Females.
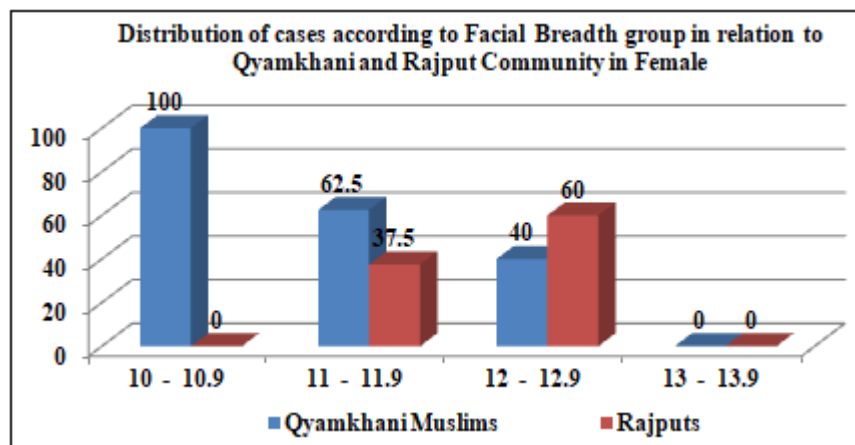
2) Facial breadth (Bizygomatic Daimeter) (c.m.) in subjects

Mean facial breadth of Qyamkhani Muslims community was 12.01 ± 0.72 while in rajaputs community was 12.17 ± 0.52 and this difference was statistically insignificant (p> 0.05).On statistical analysis, Mean Facial breadth in Qyamkhani Muslims community group (female) was 11.89 ± 0.69 while in Rajputs community (female) it was 12.23 ± 0.49 and comparison were statistically insignificant (p>0.05)
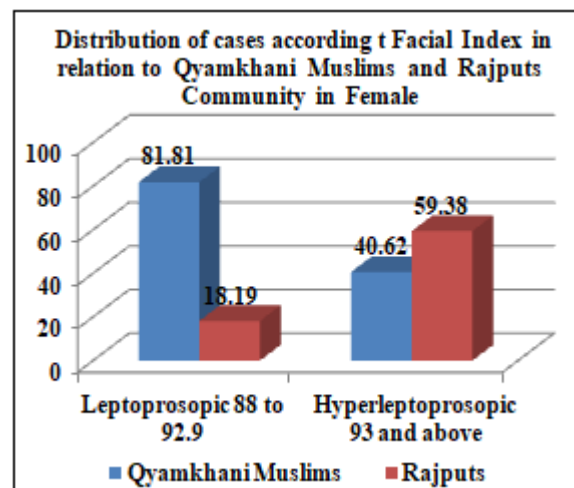
Communities	Qyamkhani Muslims women	Rajaputs women
Facial breadth (cm) Mean ±S.D.	11.89 ± 0.69	12.23 ± 0.49
p value	0.071	
t value	-1.855	

Distribution of cases according to Facial Breadth group in relation to Qyamkhani and Rajput Community in Female

3) Facial index in subjects

Mean facial index of Qyamkhani Muslims women was 93.75 ± 2.70 while in rajaputswomen was 95.58 ± 2.09 and this difference was statistically significant (p< 0.05).

Communities	Qyamkhani Muslims women	Rajaputs women
Facial index Mean ±S.D.	93.75 ± 2.70	95.58 ± 2.09
p value	0.017	
t value	-2.477	

Distribution of cases according t Facial Index in relation to Qyamkhani Muslims and Rajputs Community in Female

4. Conclusion

In present study, we concluded that facial index in Rajput women (95.58) community was higher than Qyamkhani Muslims women (93.75) community of Hanumangarh district of Rajashan. Both mainly fall within Leptoprosopic and Hyperleptoprosopic facial index group.

References

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