



A COMPARETIVE STUDY OF FACIAL INDEX OF QYAMKHANI MUSLIMS AND RAJAPUTS COMMUNITY OF HANUMANGARH DIRTRICT OF RAJASTHAN

***SHABINA¹, DR. MOHAN SINGH², SHILPA³, SHABNAM⁴ AND DR. KIRTI SHEHKHAWAT⁵**

¹P.G. Anatomy, S.P. Medical College, Bikaner (Rajasthan)

²Associate Professor, Department of Anatomy, S. P. Medical College, Bikaner(Rajasthan)

³Tutor, Anatomy dept., E.S.I.C. Medical College, Faridabad (Haryana)

⁴P.G. Student, Physiology dept., S.P. Medical College, Bikaner (Rajasthan)

⁵SR. Demonstrator in P.S.M. dept., S.P. Medical College, Bikaner (Rajasthan)

Corresponding address:*Shabina d/o Nek Mohammad, Ward no. 20, Kayamkhanimohalla,Hanumangarhtown-335513,Rajasthan, Email address-shabinakhan2359@gmail.com.

ABSTRACT

The facial index is lengthnose to the of the face from root of bottom of thechin, 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 usefulanthropologically. For these 50 subjects of Qyamkhani Muslims ana 50 subjects of Rajputs Community between the age group of 18-40were taken and their facial index was calculated and compared to each other. The result indicated that average facial index inRajputscommunity (95.14 ± 3.08) was higher than Qyamkhani Muslims community (93.65 ± 3.32).Mostly they were Hyperleptoprosopic and Leptoprosopic. Average facial height (cm) in Qyamkhani Muslims and Rajputs communities were 11.23 ± 0.63 and 11.53 ± 0.47 and average facial breadth (cm) is 12.01 ± 0.72 and 12.17 ± 0.52 .

Keywords- Facial height, Facial breadth, Facial index, Ieptoprosopic and Hyperleptoprosopic

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 malformations¹. Facial dimensions are among important cephalometric results that have been used to describe racial and sexual difference²⁻³.Present study was conducted on 100 subjects out of them 50 subjects of Qyamkhani Muslims and 50 subjects of Rajputs community aged 18-40 years in 2015.The present study carried out to establish and compare the facial index of Qyamkhani Muslims and Rajputs communities of Hanumangarh districts of Rajasthan.

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 100 subjects out of them 50 subjects of Qyamkhani Muslims and 50 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 Diameter) was taken by spreading caliper. The tips of spreading caliper were placed over the zygomatic arches.

Facial index was calculated by using the formulas-

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



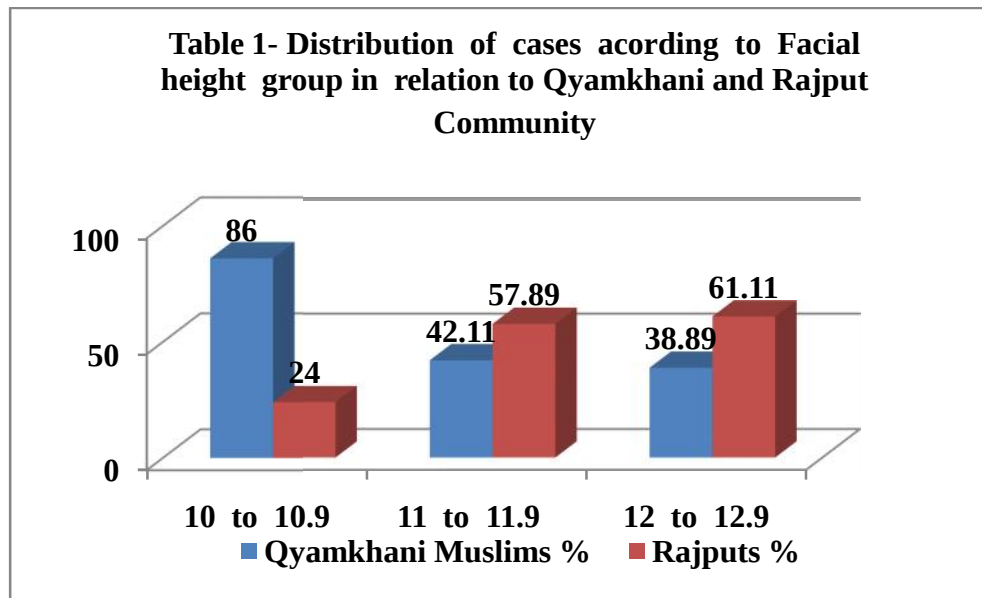
RESULTS & DISCUSSION

Facial index is a very useful anthropologically. With facial index one can easily find out racial differences therefore the present study was conducted on 100 subjects of 18-40 age group

including 50 Qyamkhani Muslims individuals and 50 Rajaputs individuals for following parameters:

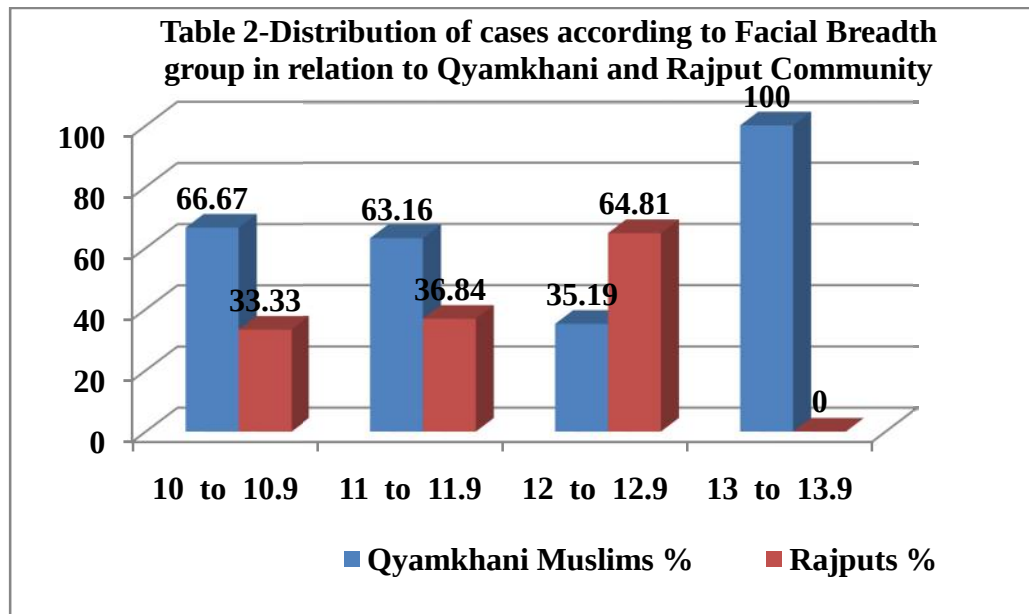
- 1. Facial height (c.m.) of subjects**-Mean facial height of Qyamkhani Muslims community was 11.23 ± 0.63 while in rajaputs community was 11.53 ± 0.47 and this difference was statistically significant ($p < 0.05$).

Communities	Qyamkhani Muslims	Rajaputs
Facial height (c.m.) Mean $\pm$ S.D.	11.23 ± 0.63	11.53 ± 0.47
p value	0.008	
Z value	-2.699	



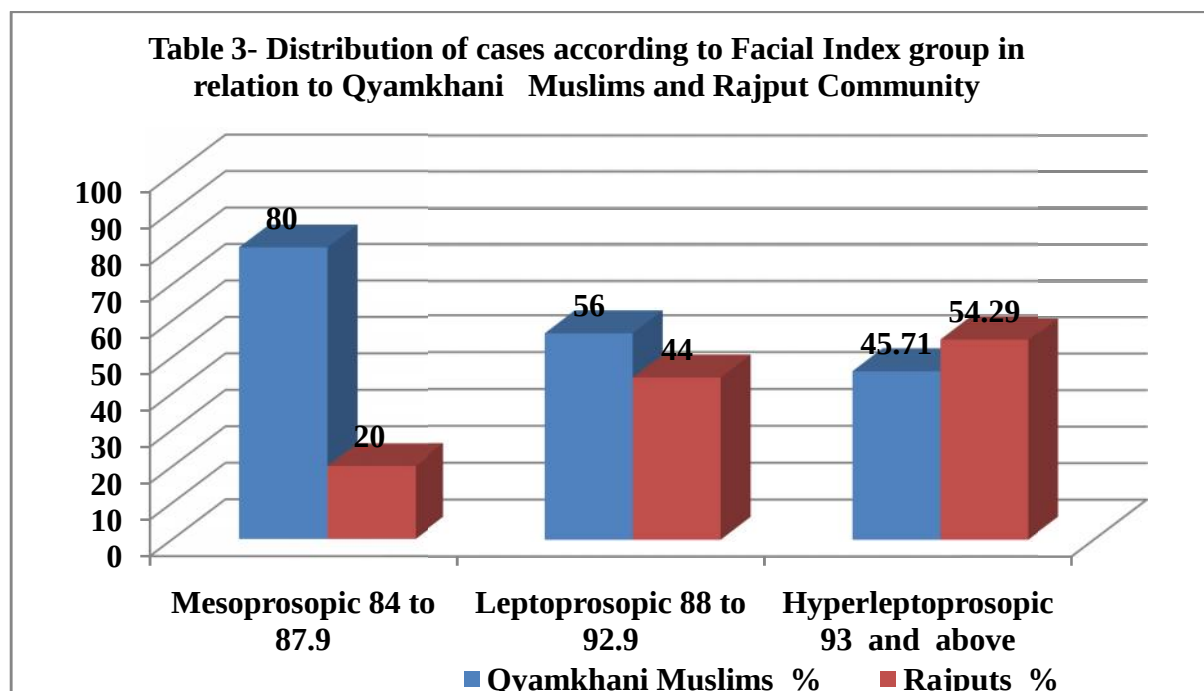
- 2. Facial breadth (BizygomaticDiameter) (cm) in subjects**-Mean facial breadth of Qyamkhani Muslims community was 12.01 ± 0.72 while in rajaputs community was 12.17 ± 0.52 and this difference was statistically insignificant ($p > 0.05$).

Communities	Qyamkhani Muslims	Rajaputs
Facial breadth (c.m.) Mean $\pm$ S.D.	12.01 ± 0.72	12.17 ± 0.52
p value	0.206	
Z value	-1.274	



3. **Facial index in subjects** -Mean facial index of Qyamkhani Muslims community was 93.65 ± 3.32 while in rajaputs community was 95.14 ± 3.08 and this difference was statistically significant ($p < 0.05$).

Communities	Qyamkhani Muslims	Rajaputs
Facial index Mean $\pm$ S.D.	93.65 ± 3.32	95.14 ± 3.08
p value	0.022	
t value	-2.326	



CONCLUSION

In present study, we concluded that facial index in Rajput (95.14) community was higher than Qyamkhani Muslims (93.65) community of Hanumangarh district of Rajasthan. Both mainly fall within Leptoprosopic and Hyperleptoprosopic facial index group.

REFERENCES

1. Oladipo, G.S., Fawehinmi and et al (2009);Canthal indices of Urhobo and Itsekiri ethnic groups:Australion Journal of Basic and Applied Sciences:3(4):3093-3096.
2. Heidari Z, SaghebHM,Mugahi MN and et al (2006); Morphological evaluation of Head and Face in 18-25 years old women in South East of Iran:J.Med.Sci:6(3): 400-401.
3. FransiscusRG,Long JC(1991);Variation in human nasal height and breadth :Am J Phys Anthropol:85(4):419-427.