while 25% of males and only 1% of females of DG Khan were megacephalic. The prominent cranium form in males from DG Khan was mesocephaly (41%), whereas it was microcephaly (85%) in females from DG Khan. The mean cephalic index was as follows: Qazvin males (88.19±5.78) and females (86.54±3.23); DG Khan males (84.11±3.7) and females (85.27±6.09). For DG Khan residents, the cranial capacity was 1348.4±122 cm^3 for males and 1189.3±180.5 cm^3 for females. At the same time, the brain weight was 1395.5±126.2 g in males and 1230.9±186.8 g in females.

Conclusion: This study shows the existence of differences in cranium dimensions between residents of Qazvin, Iran and DG Khan, Pakistan as well as in different regions of each country.

Keywords: Skull, anthropometry, Iran, Pakistan

O-24

Anthropometric features of body index in natives of Qazvin, Iran

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Introduction: The purpose of the present study was to evaluate anthropometric characteristics of weight, sitting & standing height, cormic index and Body Mass Index(BMI) in the adult residents of Qazvin, Iran.

Methods: In this cross-sectional study, 300 adult inhabitants aged 18-55 years (180 males and 120 females) of Qazvin, Iran were evaluated. The participants were selected randomly and without any physical deformities or any previous history of trauma. Measurements were performed in an anatomical position.

Results: Their mean±SD weight was 72.64±11.03 and 66.53± 9.48 kg, mean±SD standing height was 171.41±5.33 and 158.24± 5.2 cm, mean±SD sitting height was 90.22±4.04 and 86.24±2.45 cm, mean±SD cormic index was 52.51±2.07 and 54.52±1.57 cm and mean±SD BMI was 24.67±3.2 and 26.57±3.64 in males and females, respectively.

Conclusion: The result of the present study showed that the mean dimensions of weight, sitting height and BMI parameters were higher than the most of other accomplished studies.

Keywords: Cormic Index, BMI, Anthropometry, Iran

O-25

Determination of stature from forearm length in medical students

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Introduction: Stature is important for skeletal remains identification in unknown individuals. Body segments can be used for prediction of stature. In the present study, anthropometric relationships between forearm length and stature were evaluated between medical students.

Methods: This cross-sectional study was investigated on 100 medical students (50 males and 50 females and aged 19-25) of Tehran University of Medical Sciences. Participants were chosen randomly and they did not have any deformities or any previous history of disease. Measurements were performed in an anatomical position.

Results: The results showed that there was a significant relationship between the length of forearm and stature (P=0.0001). According to the results, the length of the forearm in the population was 26.63±2.89 cm and the length of males forearm 28.42±1.73 cm was longer than the length of females forearm 24.84±20.72 cm. The correlation between the stature and forearm height was significant in the population (r=0.638, p=0.0001), and in addition in males (r=0.427, p=0.002). However, that was not significant in the females (r=0.14, p=0.325).

Conclusion: The results showed that there was a reliable relationship between the length of forearm and stature between medical students and this relation was reliable in the males, too.

Keywords: Anthropometry, forearm, body segment, stature

O-26

Implications of fibre orientation of the Achilles tendon on surgical rupture and repair

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Objectives: The Achilles tendon is the most commonly ruptured tendon. Common descriptions portray simply a spiral arrangement of its fibres. Spiraling has implications for blood supply, diagnosis and surgical treatment. To further characterise this spiraling, a morphological study was undertaken.

Methods: 15 tendons from 12 embalmed cadavers, donated under the Human Tissue Act 2008, were excised. Tendons were cleaned and 11 predetermined (5 gastrocnemius and 6 soleus) fibres per specimen were identified and pins placed at 1cm intervals using a standardized photographic setup. The protocol allowed for fibres that either sunk deep into the tendon or passed from anterior to posterior. Photographs were analysed, and pin location measured using ImageJ software. Fibre locations were normalised for tendon width, and the degree of spiraling calculated. Repeat measurements were performed.

Results: The mean gastrocnemius and posterior soleus fibre lengths were 190 mm±40 mm, and anterior soleus 83± 39mm. The >5000 measurements revealed significant variation in spiraling between specimens. The most lateral fibres of anterior soleus had the largest range of spiraling of 226° with a mean (range) of 68 (0-226°), The most lateral aspect of gastrocnemius had the smallest range of 90°, with a mean of 55° (range 6-98). There was little consistency of fibre spiraling within par-