

CORRELATIONS OF ANTHROPOMETRIC AND FUNCTIONAL PARAMETERS OF 17–18 YEARS OLD FEMALES

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Material and Methods. The research showed that in girls 17–18 years old, the body length forms a moderate negative correlation with the Rohrer index ($r=-0.32$).

Results and Discussion. Weak, but authentically significant correlations, the body mass forms with the Tanner and Robinson indices ($r=0.18-0.25$). Body mass is connected by a strong positive correlation with the Rohrer index ($r=0.79$), BMI ($r=0.9$); moderate positive — with the Tanner index ($r=0.39$). The circumference of the chest is connected by a moderate positive correlation with the Tanner index ($r=0.41$). The pelvic width is associated with a weak positive, but significantly significant correlation with median and Tanner index ($r=0.13-0.25$). The Rohrer index is associated with a weak negative, but statistically significant correlation with cPAD (-0.14). LEL is associated only with weak positive and negative correlations with anthropometric parameters; a significant negative relationship is formed with the Tanner index ($r=-0.13$). The heart rate is associated with a strong positive correlation with the Kerdo index ($r=0.82$) and the Robinson index ($r=0.88$). SMAD is associated with a moderate positive correlation with body length ($r=0.32$), the Robinson index ($r=0.47$); moderate negative — with the Kerdo index ($r=-0.43$); weak positive — with pAD ($r=-0.25$).

Conclusions. The Kerdo index is associated with a strong positive correlation with heart rate ($r=0.82$); moderate negative — with mean ($r=-0.43$); moderate positive — with the Robinson index ($r=0.56$). The Robinson index is associated with a strong positive correlation with heart rate ($r=0.88$; $p<0.05$); the mean positive index is the Kerdo index ($r=0.56$); moderate positive — with aver ($r=0.47$), pAd ($r=0.34$); weak positive, but statistically significant — with body length ($r=0.23$).

HYPERDIAGNOSIS OF ACUTE APPENDICITIS IN FEMALE PATIENTS WITH A REDUCED BODY WEIGHT

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Background. Hyperdiagnosis of acute appendicitis is actual to this day. It is known that indications

for appendectomy are such symptoms as local soreness and tension in right iliac region in combination with leukocytosis. Often, patients undergo appendectomy, appendicitis without suffering. Number of unchanged processes removed during operation, and now is 20–30%. One of the reasons for hyperdiagnosis is the hypermobility of the right kidney in girls with a reduced body weight. According to the Russian Target Groups Index of 2011, 18% of girls aged 16–19 have a reduced body weight, and 11% have an age of 20–24 years. When examining such patients, the pain was determined for palpation in the right ileal region 3–4 cm medial to the point of McBurney.

Aim. The purpose of the study: to determine the ratio of patients with a moving kidney with preliminary diagnosis of «Acute appendicitis»

Material and Methods. We examined 138 patients aged 16–24 years who had reduced body weight with preliminary diagnosis of «Acute appendicitis».

Results and Discussion. In 84 patients with careful deep palpation, the lower pole of the right kidney was found medial to the point of McBurney, which was 60.8% in study group. Painful reaction to palpation was also observed. Ultrasound examination further confirmed presence of kidney mobility. Diagnosis «Acute appendicitis» was confirmed only in 23%.

Conclusions. When examining girls with reduced body weight, careful deep palpation in the right iliac region should be paid in conjunction with ultrasound examination of the abdominal cavity.

MORPHOMETRIC STUDY OF THE ARTERIES OF THE POSTERIOR SURFACE OF THE TIBIA

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Aim. The study of the morphometric details of the arteries of the posterior surface of the tibia.

Material and Methods. Fifteen Greek adult cadavers (mean age, 81.06 years) were dissected in the popliteal fossa and the posterior surface of the tibia. Popliteal artery (PA), anterior tibial artery, posterior tibial artery (PTA), fibular artery (FA) and nutrient fibular artery (NFA) were identified. The mean length of the fibula, the mean distance between

the head of the fibula and the PTA, FA and NFA origins, the mean PA diameter at the highest point of the fibular head, the mean PTA and FA diameters at their point of origin and the mean NFA diameter at the entrance point to the fibula were measured.

Results and Discussion. The mean length of the fibula was 37.05 cm and the mean PA diameter was 6.06 mm. The PTA originated at a distance 8.03 cm from the fibular head with a mean diameter of 3.67 mm. The FA originated at a distance 8.03 cm from the fibular head with a mean diameter of 3.54 mm. The NFA originated at a distance 15.7 cm from the fibular head with a mean diameter 1.3 mm, at its entrance point to the fibula. In 95% of the cases, the PTA entered at the middle third of the fibula. In cases where the NFA was given off from a muscular branch of the FA, the mean distance of the artery's origin from the fibular head was 15.7 cm. Twenty-eight cases of a single FA (93.3%), 1 case of a duplicated FA and 1 case of absence (3.33%) were detected. The PA bifurcated in a PTA and a FA, at the level of the fibular head in 3.3%. In 6.6%, the PTA was hypoplastic, while the FA diameter was 3.8 mm.

Conclusions. The position of FA and NFA insertion and particularly the entrance point of the NFA to the fibula have clinical implications for the harvest of osteocutaneous vascularized flaps.

SELLA TURCICA MORPHOMETRY AND ITS FLOOR MORPHOLOGY: AN ANATOMICAL STUDY IN DRY SKULLS

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Key words: skulls, sella turcica, floor, length, depth

Background. Sella turcica (ST) is a concavity in the body of the sphenoid bone situated in the middle cranial fossa and typically contains the pituitary gland. ST shape or size abnormalities can be associated with pituitary gland pathologies and several syndromes.

Aim. The aim of the current study is to identify the ST morphometry (length and depth), the morphology of its floor (possible depression or well-formed fossa) and calculating the frequency of each fossa, as well as any possible correlation between them.

Material and Methods. ST length and depth and the presence of an indentation (a depression or

a well-formed fossa) on ST floor were evaluated in 122 (60 male and 62 female) Greek adult dry skulls. The indentations were carefully assessed, by using a magnifying loop.

Results and Discussion. The mean ST length and depth were 1.0 ± 0.2 and 0.9 ± 0.1 cm. An anterior fossa was observed in 34 skulls (27.9%), a posterior fossa in 58 skulls (47.5%), both anterior and posterior fossae in 19 skulls (15.6%) and no fossa in 11 skulls (9%). Male skulls with anterior or both an anterior and posterior fossae had longer ST than male skulls with posterior fossa or no fossa.

Conclusions. ST morphometry and the incidence of each type of ST floor are in accordance with previous studies. This is the first study identifying a correlation between fossa type and ST length in skulls. These findings should be taken into consideration in diagnostic and therapeutic procedures relevant with ST.

A SIMPLE METHOD TO ESTIMATE THE ORBITAL FLOOR LINEAR LENGTH IN ADULTS

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Key words: orbital floor, infraorbital rim, orbit, formula, reconstruction, repair

Background. The orbital floor (OrF) and infraorbital rim (IOR) repair in cases of complete destruction is challenging mainly due to the fact that the defect length cannot be measured.

Aim. The aim of the current study is to develop a method of calculating the OrF linear length by using the gender and the linear lengths of the medial, superior and lateral orbital walls (OrW) of the same orbit.

Material and Methods. Ninety-seven (59 male and 38 female) European adult dry skulls were classified according to age: 20–39, 40–59 and 60 years and above. The linear length of each OrW was measured by using the direct distance between the optic foramen and a landmark in each orbital rim.

Results and Discussion. A side asymmetry was detected for the linear lengths of the inferior, superior and medial OrW. A gender dimorphism was detected, but no correlation with the age was found. Using the Stepwise multiple regression analysis two formulas were developed, one for the right and one for the left OrF with coefficient of determination R^2 0.43 and 0.57, respectively.