COMPARISON OF INVOLUTIONAL CHANGES ON MAXILLA AND MANDIBLE

Bilandžić Joško, Hrkač Stela, Štoković Nikola, Grgurević Lovorka

Key words: *maxilla, mandible, alveolar process, teeth loss, involutional changes*

Background. Dimensions and shape of maxilla and mandible are highly influenced by the presence of teeth and force produced by masticatory muscles. As a consequence both dimensions and shape might change with aging.

Aim. Our goal was to compare the extent of these changes between maxilla and mandible.

Material and Methods. We examined 169 maxillae and 42 mandibles (age range 20–80 years) using digital caliper. There were 14 measures on maxilla and 11 measures on mandible. Measures were labeled as vertical, horizontal or sagittal in order to study growth in three dimensions. Bones were divided into three groups based on presence of teeth and alveolar process: group 1 — completely preserved teeth and alveolar process; group 2 — partialy preserved teeth or alveolar process; group 3 — all teeth lost and alveolar process completely resorbed.

Results and Discussion. In both maxilla and mandible only vertical measures showed significant change with aging. On the maxilla all vertical measures in group 3 decreased when compared to group 1. Decrease ranged from 8% to 17%. Group 2 didn't show significant changes when compared to group 1. On the other hand on mandible only those vertical measures containg alveolar process component decreased. Decrease was significant in both group 2 (ranging from 4.5 and 20%) and group 3 (ranging from 22.5 and 59%).

Conclusions. Teeth loss causes vertical dimensions regression on both maxilla and mandible, whereas change of masticatory muscles function with aging plays minor role. The impact of teeth loss is more profound on mandible than on maxilla.

MORPHOMETRIC CHARACTERISTICS OF HUMAN RENAL HILUM

Bocharov V. Y., Shvedavchenko A. I., Oganesyan M. V., Klueva L. A., Vasyanina K. A., Zotkin D. A.*

Sechenov First Moscow State Medical University (Sechenov University), Moscow, Russia
* moloko1978@gmail.com

Key words: *renal hilum length, renal hilum width, renal hilum*

Background. Further study of anatomy, topographic and morphometric characteristics of the kidneys and their blood vessels is relevant for clinical practice. As a rule, these data are taken into account in modern diagnostic studies, in kidney angioplasty, organ transplantation and correction of congenital anomalies.

Aim. To determine morphometric characteristics of human renal hilum.

Material and Methods. There were investigated 42 left and 42 right kidneys of adult male and female. The cause of these people death were not urinary system diseases. The gate of the kidney was measured by a caliper.

Results and Discussion. The length of men's right and left renal hilums varied from 2.5 to 5.0 cm. The average length of left renal hila was 3.54 cm, right — 3.31. The length of left women renal hila was from 3.2 to 5.1 cm (M=3.89 cm), right hila — from 2.6 to 5.0 cm (M=3.43 cm). The widths of men's left renal hila varied from 1.5 to 2.5 cm (M=2.09 cm), right renal hilum — from 1.5 to 3.2 cm (M=1.98 cm). In women width of left renal hila was from 1.9 to 2.6 cm (M=2.49 cm), right — from 1.5 to 3.0 cm (M=2.0 cm).

Conclusions. According to the research data lengths and widths of female renal hila are more variable than male.

JOINT EVIDENCE OF CONNECTIVE TISSUE DYSPLASIA

Bogrova M. I., Sukhinin A. A., Shchepalina A. A.*

Kuban State Medical University, Krasnodar, Russia
* T-day@yandex.ru

Key words: *connective tissue dysplasia, joint, hypermobility, syndrome, Beighton score*

Background. Joint hypermobility syndrome rate higher than normal anatomical parameters is the indicator of connective tissue dysplasia (CTD).

Aim. During this research we reviewed the prevalence of joint hypermobility syndrome (JHS) using Beighton score.

Material and Methods. Beighton score rate of 1346 young people aged 17–27 (322 men, 1024 women) was studied. The women rate of score exceeds statistically significant indices of the same of men. The exception is the capacity of both sides knee joint hyperextension which did not have significant gender differences ($p>0.15$).

Results and Discussion. Taking into account that the indices from 0 to 2 scores under Beighton scale are the normal ones, one may say that normal scores are presented in more than a half of male students (53%) and one third of female students (33%) of general medicine department. Slight hypermobility (3–4 scores) is observed in 20% of men and 29% of women in the research population. Mild hypermobility (5–8 scores) is evidenced in 24 and 33%,