

Table 2: Sex-dependent variability of the dimensional characteristics of the greater palatine canal (mm).

Table with 5 columns: Parameters, On the right (mm), M ± σ (males, females), Validity of differences (Males, Females), and Validity of differences. The table is currently empty.

Table 3: Shape- and sex-dependent variation in the length of the greater palatine canal (mm).

Table with 6 columns: Length, On the right (mm), M ± σ (Males, Females), Validity of differences (males, females), On the left (mm), M ± σ (males, females), and Validity of differences. Rows include shapes like crescent, undulated, straight, funnel, hourglass, and zigzag.

In males of their first period of adulthood, the undulated greater palatine canal was combined with an oval (28%), drop-shaped (22%), ovoid/semi-circular (10%), rhomboid, round, bean-shaped (6%), or helic (3%) greater palatine foramen. The straight greater palatine canal opened in the palate with an ovoid (28%), semi-circular (12%), triangular, round, or bean-shaped (4%) greater palatine foramen. The hourglass-shaped greater palatine canal was combined with an oval (55%), bean-shaped (27%), ovoid or helic (9%) greater palatine foramen. The zigzag-shaped greater palatine canal was combined with oval (50%), drop-shaped (33%), or bean-

shaped (17%) greater palatine foramen. The undulated greater palatine canal was combined with oval (49%), rounded (15%), rhomboid (10%), ovoid or drop-shaped (8%), triangular or bean-shaped (4%), or helical (2%) greater palatine foramen.

The observed forms of the greater palatine canal were the following: funnel-shaped with a bend in the lower third; hourglass-shaped; crescent-shaped; undulated; straight; zigzag-shaped.

In males, the crescent-shaped form of the great palatine canal was most often found (39%); and the form found



least often was the zigzag shape (2%). In females, the crescent-shaped form of the greater palatine canal was most often observed (38%); the least frequently observed form was the funnel-shaped canal with a bend in the lower third (2%) (Figure 2).

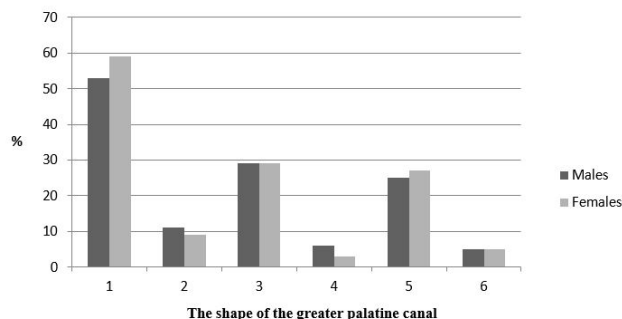


Figure 2: Sex-dependent frequency of occurrence of forms of the greater palatine canal (%). 1-Crescent-shaped; 2-Hourglass-shaped; 3-Undulated; 4-Zigzag-shaped; 5-Straight; 6-Funnel-shaped with a bend in the lower third.

In females of the first period of adulthood, the straight canal was combined with an oval (46%), drop-shaped (12%); semi-circular (12%); ovoid (8%); bean-shaped (4%); rhomboid (12%); or rounded (8%) greater palatine foramen. The funnel-shaped canal with a bend in the lower third was combined with an oval (25%); drop-shaped (25%); semi-circular (25%), or bean-shaped (25%) greater palatine foramen. The crescent-shaped palatine canal was combined with an oval (41%); drop-shaped (17%); semi-circular, ovoid, bean-shaped, rhomboid (5%); crescent-shaped, rounded (7%); helical or triangular (3%) greater palatine foramen. The hourglass-shaped greater palatine canal was combined with an oval (56%); drop-shaped, ovoid, bean-shaped, or rounded (11%) greater palatine foramen. The undulated canal was combined with an oval (38%); drop-shaped (21%); ovoid, bean-shaped, rhomboid (3%); crescent-shaped (14%); rounded (10%); or triangular (7%) greater palatine foramen. The zigzag-shaped palatine canal was combined with an oval (33%) or drop-shaped (6%) greater palatine foramen.

According to A.A. Semenova, three forms of the greater palatine foramen have been identified, namely round, oval, and drop-shaped ones [8]. In our study, 11 forms of the greater palatine foramen were identified, namely oval, elongated in the anteroposterior direction, drop-shaped, triangular, helical, oval, elongated in the medio-distal direction, round, crescent-shaped, ovoid, bean-shaped, rhomboid, and semi-circular. These contradictions are related to the fact that the work of A.A. Semenova was carried out on dry skulls, while we conducted studies on cone-beam computed tomograms.

According to Borodulin, the length of the greater palatine canal ranged from 27 to 42 mm [9]. In our studies, the length of the greater palatine canal in males varied from 27.77 to 45.19 mm on the right, and from 26.35 to 44.09 mm on the left. In females, the length of the greater

palatine canal ranged from 26.05 to 39.87 mm on the right, and from 25.99 to 39.43 mm on the left.

According to Aoun, et al. [10], the diameter of the greater palatine canal in the lower third was 5.85 ± 1.24 on the right and 5.82 ± 1.27 on the left; in the middle third 2.4 ± 0.71 on the right and 2.45 ± 0.55 on the left; in the upper third 6.85 ± 1.24 on the right and 6.82 ± 1.27 on the left. According to our data, the diameter of the greater palatine canal averaged 3.80 ± 0.71 mm on the right and 3.79 ± 0.59 mm on the left; the diameter of the greater palatine canal in the middle third was 2.94 ± 0.64 mm on the right and 3.00 ± 0.64 mm on the left; the diameter of the greater palatine canal in the upper third was 5.24 ± 0.68 mm on the right and 5.29 ± 0.68 mm on the left. Our data differ from the data of other studies, which may be since our studies were conducted only in persons of the first period of adulthood.

CONCLUSION

The greater palatine foramen and the greater palatine canal have pronounced sex-dependent differences. The size of the medio-distal and anterior-posterior diameters of the greater palatine foramen in males is 11-17% greater than in females ($p < 0.001$). In persons of both sexes, the most common forms of the greater palatine foramen are oval, drop-shaped, and rounded; the rarest forms are crescent-shaped, triangular, rhomboid, and helical. The length of the greater palatine canal in males is 7.1-7.5% more than in females. The diameter of the greater palatine canal in the lower, middle, and upper third in females is less than in males by 4-29%. In persons of both sexes, the most common form of the greater palatine canal is crescent-shaped, and the forms that occurred least of all were the zigzag-shaped canal and the funnel-shaped canal with a bend in the lower third.

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