

3. ANGIOGRAPHIC STUDY OF THE RENAL ARTERIES ACCORDING TO SEX CORRELATION.

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Introduction. Kidney is the most transplanted organ worldwide, according the GODT. By 2019, 355 kidney transplants were performed in Moldova. The COVID-19 pandemic has had a negative impact on the number of kidney transplants, which in 2021 decreased by an average of 19.14% worldwide. In low income countries, this value decreased up to 64%. Therefore, any anatomical findings that improve the chances of a successful kidney transplant, by choosing the right donor should be taken into account.

Aim of study. According to various authors, the diameter of the renal arteries at the ostium level ranges from 3.0 mm to 9.7 mm. M. K. Tarzamni et al. has indicated the presence of a direct correlation between the diameter and angle of origin of the renal artery. Majos M. et al noted that the presence of additional renal arteries leads to a decrease in the diameter of both vessels. Kagaya S. and Co-author found that the diameter of the left renal artery is usually larger than the right one and this directly correlates with an increased incidence of acute renal infarction of the left kidney.

Methods and materials. The study was performed on 27 aorthograms, obtained from patients of both sex, from 24 to 78 years old, who did not suffer from any renovascular disease. The branching angle of the renal artery and diameter of the renal artery at the ostium level were measured. The obtained data was analyzed using a descriptive statistics method.

Results. In men, the average diameter of the left renal artery was 4.31 ± 0.63 mm, and of the right one was 4.27 ± 0.76 mm. The angle of branching of the left renal artery corresponded to 128.97 ± 3.74 . The right renal artery had ramification at an angle of 85.3 ± 5.54 . In women, the mean diameter of the left renal artery is 3.86 ± 0.50 mm and that of the right is 3.71 ± 0.42 mm. The left renal artery ramification angle = 127.21 ± 4.75 , and the right one at an angle = 80.11 ± 3.29 .

Conclusion. During our study, no significant differences were found between the right and left renal arteries in both the group: men and women. However, in women, the diameter of the renal arteries is generally smaller, by ~ 0.5 mm compared with the “men’s” group, which in most cases is explained by their constitutional features. The left renal artery branched into first-order branches at an obtuse angle in all cases, which may create difficulties in endoarterial distal embolization. The right renal artery had an acute or almost rectangular branching angle, which facilitates some surgical procedures.