

Variation in origin of left testicular artery- Case Report

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Abstract

An unusual case of variation in origin of Left Testicular artery from left renal artery and normal course below downwards. Accurate information regarding these variation is important during vascular and re-constuctive surgery and also for urology and has its importance in preventing complications in various surgical procedures.

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nerve and descend on to external iliac artery and then enters the deep inguinal ring where it enters in to spermatic cord then traverses the inguinal canal the superficial inguinal ring and finally reaches the upper end of testis where it breaks up in to branches some of which supplies testis and other anastomose with artery to vas deferens.

Introduction

Testicular arteries are two long slender vessels arise anteriorly from the aorta little inferior to the renal arteries.¹ Each artery passes retroperitoneally downwards and laterally on the posterior abdominal wall towards deep inguinal ring where it enters in to spermatic cord.² Passing through the spermatic cord it traverses the inguinal canal, the superficial inguinal ring and finally reaches upper end of the testis.³ Variations of these arteries and veins have been extensively studied due to their importance in testicular physiology.⁴ Anomalies in the number course and origin of testicular arteries were observed in 4.7 percent of cases in the study of 150 cadavers.⁵ Variations in origin of testicular arteries are common and are frequently reported. The arteries may vary in their origin; one or both arteries may arise from renal, suprarenal artery or lumbar artery.⁶

Case Report

During the routine dissection of male cadaver, variation in origin of the left testicular artery was observed. In this case the left testicular artery arises from the left renal artery about 1cm from abdominal aorta, a deviation from normal course, where in testicular artery normally arises from the front of the aorta immediately below renal artery and descends obliquely downwards and laterally in front of psoas major muscle. In this case the testicular artery after originating from the renal artery had course, relations and branches as normal below level of origin from the renal artery, that is it passes laterally in front of psoas major muscle crossing the ureter and genitofemoral

Discussion

Knowledge of variations of testicular artery as reported in the case report is essential from point of various investigative and surgical procedures. It has been reported that there are variations in origin of testicular arteries, their presence or absence, their origin from neighboring artery like renal artery, supra renal artery and lumbar artery.⁶ The gonadal artery variations are more commonly found in males than in female fetuses and were more on right side then left.⁷ There are few reports of testicular artery arising from the anterior surface of abdominal aorta at the level of the left renal artery.⁸ The study on classification of testicular artery variations included testicular artery from both fetuses and adult group according to their origin from aorta or renal artery. Four major types were observed. Type A single testicular artery originating from aorta. Type B single testicular artery originating from renal artery. Type C two testicular arteries arising from aorta that supply the same gonads. Type D two testicular arteries arising from aorta and other from renal arteries.⁹ Their is also a report of case of high origin of left testicular artery from left renal artery.¹⁰ In the present case, the anomaly reported is rare as most higher variations of testicular arteries are from right supra renal or right accessory renal artery and not much literature is available for testicular artery origin from left renal artery. Our case report to some extent is supported by the classification and a case cited above. In the present case the testicular artery is a branch of left renal artery, it becomes still more necessary to be aware of such variations.

Conclusion

The anatomical knowledge of testicular arteries and in depth understanding of their variations is important in various surgical procedures and has significant importance in the field of urology and has its importance in preventing complications in various surgical procedures.

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