CASE REPORT

ABERRANT LEFT TESTICULAR ARTERY ALONGWITH THREE LEFT RENAL ARTERIES

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A male cadaver of a middle-aged was dissected in the Department of Anatomy of Ayub Medical College, Abbottabad. The cadaver was of a well-built person victim of a road traffic accident, and he had no gross anomaly elsewhere in the body as revealed by dissection of various regions.

But after opening of abdominal cavity and reflection of peritoneum from the posterior abdominal wall three renal arteries of varying size were found on the left side separately originating from abdominal aorta alongwith two renal veins draining as a single vein in the inferior vena cava.

The left testicular artery was arising from one of the three renal arteries which was of the largest caliber.

The left testicular vein was found to be draining into the left renal vein.

On the right side, only a single renal artery and a vein were fond and the right testicular artery was arising from the aorta just below the origin of right renal artery. The right testicular vein was draining into the inferior vena cava.

Both the kidneys were of the normal size.

DISCUSSION:

From the developmental perspective, the dorsal aorta gives off 3 sets of branches viz.

1. Segmental branches to the digestive tube. The ventral splanchnic arteries.
2. Mesonephric ridge. The lateral splanchnic arteries.
3. Intersegmental branches to the body wall. The somatic arteries.

(Williams and Warwick 1989)

Taking the group of lateral splanchnic arteries into discussion, they supply 3 structures on each side viz, the mesonephros, testis or ovary, and the suprarenal glands and the interesting aspect about these paired structures is that they develop in whole or in part, from the mesoderm of the mesonephric ridge.

(Williams and Warwick 1989)
The derivation of the blood supply of these paired structures from abdominal aorta in postnatal life is such that one testicular or ovarian artery (according to sexual development) one renal artery, and 3 suprarenal arteries persist on each side and supply their corresponding structures.

Sometimes multiple renal arteries are also observed and these additional renal arteries may be looked upon as branches of the persistent lateral splanchnic arteries which for one reason or other failed to obliterate during the vascular development of the renal system. ¹

The anomalous origin of left testicular artery in this instance can be explained on the basis of the fact that testicular arteries on both sides stem from almost the same level of the abdominal aorta a little below the renal arteries. So now a possibility exists that as both renal and testicular arteries arise from almost the same segment of dorsal aorta, fusion of both vessels occurred in their proximal aspect on the left side and hence the left testicular artery was found sprouting from a common reno-testicular truck or to be more precise from the felt renal artery.

REFERENCES