RENAL LYMPHATIC DRAINAGE AND THORACIC DUCT CONNECTIONS: IMPLICATIONS FOR CANCER SPREAD

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ABSTRACT

Studies on renal lymph drainage have generally described lymph nodes without further investigation of the lymph vessels. Our purpose was to revisit this organ to study the vessel drainage pattern. This investigation was performed on 16 refrigerated adult cadavers. After both kidneys were injected with a blue modified Gerota mass, lymph vessels were dissected until their termination. From the right kidneys (n=13), lymphatics (n=8) traveling on the anterior aspect of the inferior vena cava were dissected, reaching interaortocaval and more distant nodes, aorta bifurcation (n=1) and left lateroaortic (n=1); posterior lymphatics were observed in all subjects, uniformly connecting to the thoracic duct, either after crossing nodes (n=8) or directly (n=5). From the left kidneys(n=13), anterior efferents (n=16) were dissected, reaching left lateroaortic and also celiac (n=4) and iliac (n=1) nodes; posterior lymphatics were also demonstrated, always connecting to the thoracic duct (3 directly). Renal lymphatics have been found to reach very distant nodes as well as always connecting to the origin of the thoracic duct. This feature suggests an important role in both the formation of the thoracic duct and in the spread of renal cancer.