



Assessment of Hepatic Arterial Anatomy Prior to Organ Recovery

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ABSTRACT

Iatrogenic hepatic arterial injury during organ recovery increases ischaemic times and risk of hepatic artery thrombosis. A review of CT imaging prior to organ recovery would alert retrieving surgeons to the presence of anatomical variants. This study aimed to identify the proportion of donors with coincidental CT scans for review and the ability of organ retrieval surgeons to interpret these images. Consecutive organ donors with coincidental abdominal contrast enhanced CT scans were assessed by review of an electronic radiology database. These images, with additional cases, were blindly reviewed by organ recovery surgeons to assess their ability to define anatomy. 13/156 donors had coincidental imaging for review. Using 23 CT sequences, the median positive and negative predictive value of surgeons to correctly describe right hepatic arterial anatomy was 0.83 and 0.94, of the left hepatic anatomy was 0.75 and 0.94 respectively. The availability of CT imaging for review prior to donation is low. However, when available, surgeons can correctly define hepatic arterial anatomy in the majority of cases. A practice of routinely reviewing available imaging prior to organ recovery would be expected to decrease iatrogenic arterial injury.

KEYWORDS

Organ Donation; Arterial Injury; Prevention; Computerized Tomography

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