

AB135. SOH22ABS023. Prevalence of femoral vein duplication: systematic review and meta-analysis

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Background: Duplication of the femoral vein is an important anatomical variation of the venous anatomy which has been shown to have an impact on the diagnosis of deep venous thrombosis by compression ultrasonography. The presence of duplication may result in false negative findings while evaluating for deep venous thrombosis, with serious consequences such as pulmonary embolism and death. This meta-analysis aims to determine the pooled prevalence of duplicated femoral veins.

Methods: A systematic search was conducted through the major databases PubMed, Hinari, Embase and Medline to identify studies eligible for inclusion. Appropriate data were extracted and pooled into a random-effects meta-analysis using MetaXL software. The primary and secondary outcomes of the study included the pooled prevalence of duplicated femoral veins and the prevalence of bilaterally duplicated femoral veins, respectively.

Results: A total of 11 studies (n=3,682 limbs) were included. The overall pooled prevalence of duplicated femoral veins was 19.7% [95% confidence interval (CI): 11–30%]. There was a significant difference in prevalence between cadaveric studies (2%, 95% CI: 1–4%) and imaging studies (25%, 95% CI: 17–34%).

Conclusions: Duplication of the femoral vein is a common variation in the lower limbs. Routine watch-out should be practiced especially when performing lower limb Doppler studies in cases of deep venous thrombosis in order to avoid misdiagnosis and improve diagnostic accuracy.

Keywords: Anatomy; deep venous thrombosis; duplication; femoral vein; ultrasound

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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