

Auspicious Prophylactic Inferior Vena Cava Filter Placement Immediately Prior to Iliac Vein Thrombectomy: A Case Report

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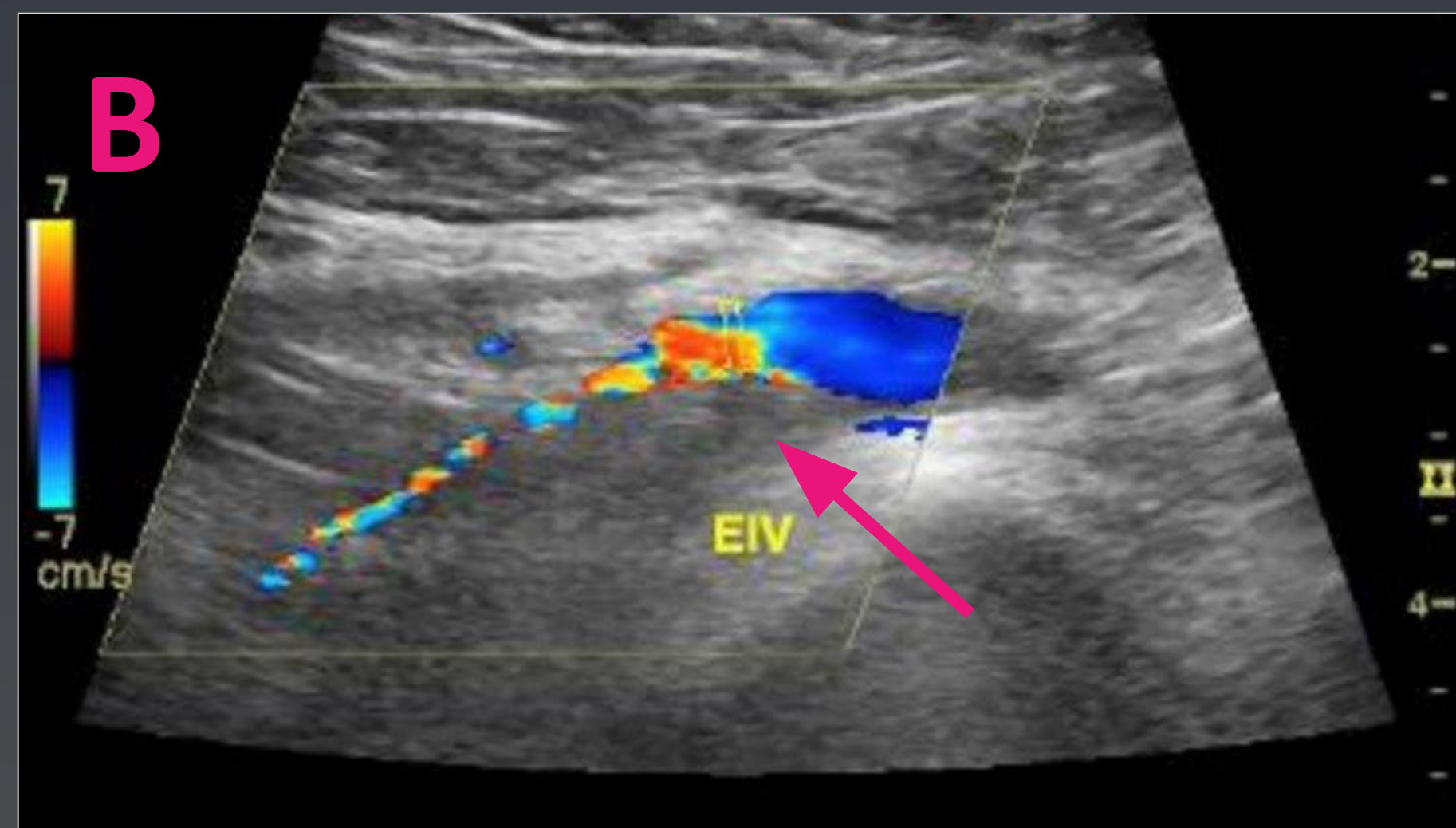
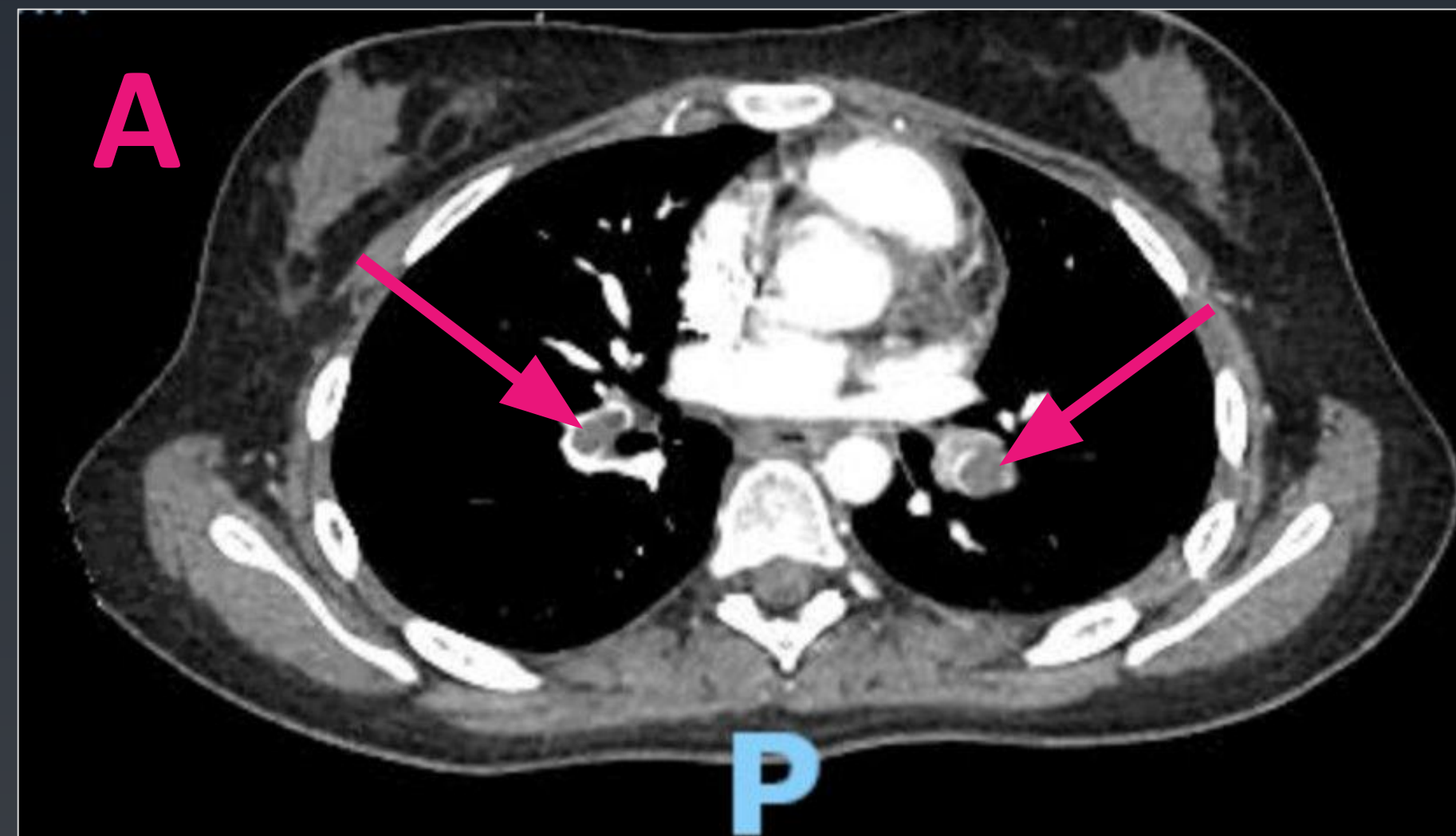
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Background

Venous thromboembolism including deep venous thrombosis (DVT) and pulmonary embolism (PE) affects 1 in 1,000 adults annually. Additionally, PE is the third leading cause of death following myocardial infarction and stroke. DVT and PE are often diagnosed in tandem; with the radiologic diagnosis of one entity often prompting evaluation for the other. In these settings, clinicians must not only determine appropriate treatment of PE, which can include systemic thrombolysis, catheter directed thrombolysis, and mechanical thrombectomy but they must also determine appropriate management of the deep venous thrombosis.

Methods

17-year-old female with B-cell acute lymphoblastic leukemia and acute pulmonary embolism (**image A**) secondary to venous thrombosis within the right superficial femoral, right common femoral and bilateral external iliac veins (**image B**). The patient was immediately treated with systemic heparin and subsequently scheduled for suction thrombectomy of right deep vein thrombosis. Prior to mechanical thrombectomy of the DVT, an IVC filter was placed prophylactically given the patient's known pulmonary embolism, age, comorbidities and vital signs. During the procedure, large clot from the right external iliac vein mobilized proximally and was captured by the filter.



Results

On repeat venography two days later, persistent clot was present within the filter (**image C**) and was removed via suction thrombectomy before the filter was safely retrieved. In this case, filter placement likely prevented conversion to massive pulmonary embolism. The patient did well and was discharged home within 24 hours of the IVC filter removal.

Conclusions

Prophylactic IVC filter placement prior to DVT thrombectomy may confer significant benefit, prevention of potentially massive pulmonary embolism, and various clinical factors must be weighed in the careful selection of these patients. Robust clinical trials are recommended to further delineate indications for IVC filter placement as an adjunct to DVT thrombectomy.

References

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