

The Clot Thickens: Bilateral Pulmonary Embolism In the Pregnant Patient with Antithrombin III Deficiency

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BACKGROUND

- Venous thromboembolisms (VTEs) contribute to 9.2% of pregnancy-related mortalities in the US
- Congenital antithrombin III deficiency (AT3D) is a rare autosomal dominant disorder
- AT3D is far more hypercoagulable than other more common thrombophilia
- The absolute risk also increases from 6.1% to 9% if the parturient is 35 years or older

Table 1 (right): Pregnancy and VTEs in Inherited Thrombophilias.Adapted from ACOG Practice Bulletin No. 197.

Antithrombi deficiency

- Factor V Leid
- Factor V Leid
- Prothrombin generation heterozygote
- Prothrombin generation homozygote



	Prevalence (%)	VTE Risk Per Pregnancy (%)	Percentage of all VTE
oin /	0.02	40	1
den te	1-15	10	40
den ie	<1	17	2
jene te	2-5	>10	17
jene :e	<1	>17	0.5

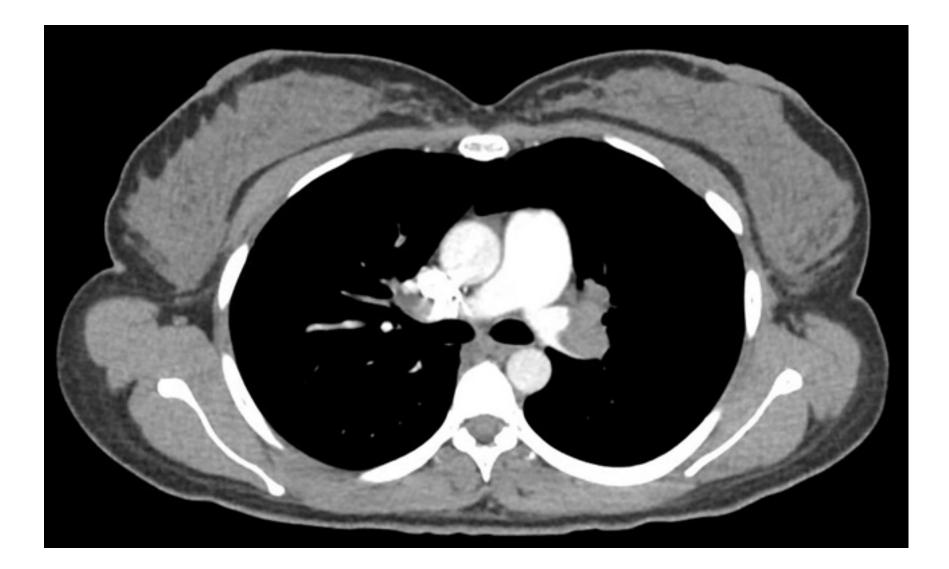


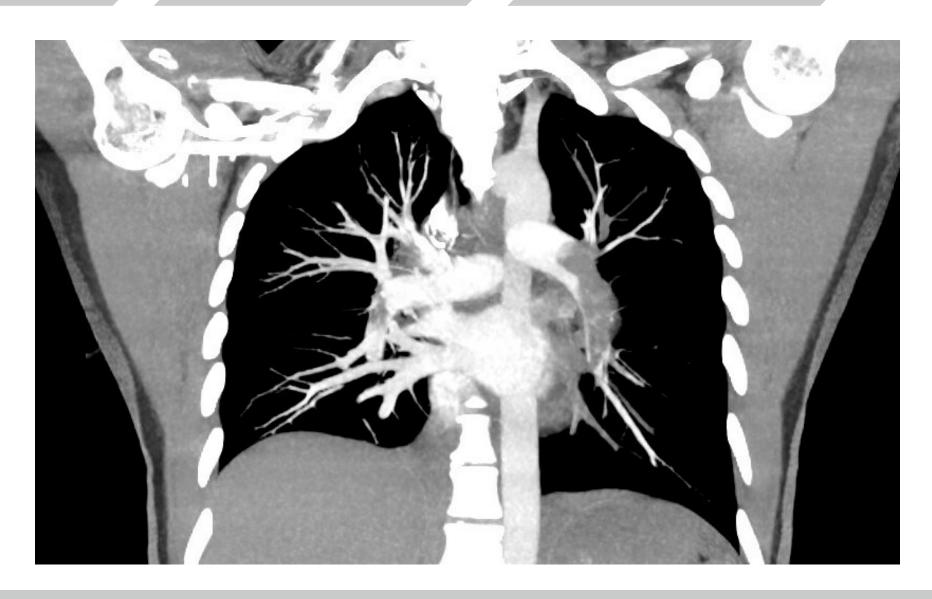
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37 year old G3P1011 on enoxaparin 40mg daily

Presented at 34w6d with dyspnea and chest pressure Underwent a suction embolectomy for bilateral PE







ICU course complicated by obstructive shock Uncomplicated cesarean on hospital day 5 under spinal



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TEACHING POINTS

- Suspicion for VTE should remain high if the patient develops hypotension and dyspnea despite prophylactic anticoagulation
- This is particularly true in patients with AT3D, especially when other risk factors are present
- Consider POCUS to look for right heart strain, guide vasopressors choice, or plan for mechanical support

REFERENCES

- 1. ACOG Practice Bulletin No. 197: Inherited Thrombophilias in Pregnancy. Obstetrics & Gynecology 2018. PMID: 29939939
- 2. Gerhardt A. Blood 2016. PMID: 27613196.

