

Pulmonary embolism in an incarcerated individual: Lessons in health inequity

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Abstract

Our patient is a thirty-nine-year-old male with past medical history of hypertension, hyperlipidemia, CKD, seizure, depression, anxiety, and history of drug abuse, who presented to the emergency room (ER) from Waymart prison for evaluation of severe swelling of the left calf over the past few days. An outpatient evaluation showed extensive deep vein thrombosis. The patient was admitted to the medical floor for further evaluation. The patient did not have cough but complained of pleuritic chest pain upon deep inspiration. The patient denied any shortness of breath or palpitation or any syncopal or presyncopal episode. CT PE showed moderate bilateral PE. The patient was started on intravenous heparin drip. Over the last two years, the patient was only on a baby aspirin daily. He stated that he was on Coumadin in the past. His coumadin was stopped abruptly over the past two years. He was not aware about any valid reasons. Detailed questioning revealed that he was diagnosed with antiphospholipid syndrome in 2012. At that time, he had developed a right lower extremity DVT and underwent an extensive two month hospital course, including hemodialysis. Venous duplex examination showed acute occlusive thrombus in the left femoral, popliteal and gastrocnemius veins. CT PE protocol showed bilateral acute pulmonary emboli with moderate thrombus burden, without any definitive suggestion of right heart strain. Pulmonary infarct in the posterior basal segment of the right lower lobe was noted. The management of our patient has valuable lessons. First, it shows the personal challenges faced by an individual due to incarceration, including inappropriate discontinuation of lifesaving medicine(s). He was restrained to his bed in the hospital through handcuffs placed on his right leg, which severely restricted his ambulatory status. Prison cells are confined places with very little space for activity. Lack of ambulation and mobility is an important precipitant for the development of deep vein thrombosis (DVT). This is especially aggravated with genetic predisposition to hypercoagulability. Community involvement to help these individuals is warranted. Often during release from prison, there is a lack of personal identification documents to seek their first primary care appointments. These individuals should be assisted with waivers. Our patient was bridged from IV heparin to oral Coumadin, with a dose to obtain target INR goal of 2-3. He was extensively counselled not to stop the use of Coumadin as he would need lifelong anticoagulation. Appropriate continuity of care is extremely important for our patient. Caring for these individuals teaches us important lessons regarding social determinants of health and emphasizes the need to maintain medical records for marginalized minorities like the incarcerated population, and continued access to life sustaining medications like Coumadin. Care of this individual was communicated to the prison authorities prior to discharge.

Introduction

Incarcerated people are a small group of Americans who have constitutional right to healthcare. However, healthcare delivery to incarcerated people is highly neglected, demonstrating gaps in healthcare delivery, inequity, bias, and discrimination.

Often, a lack of medical records creates barrier in healthcare delivery. Here we highlight one such circumstance.

The Case

CC - Severe left leg swelling x past few days, presenting from State Correctional Institution – Waymart.

HPI - 39Y male with PMH/HTN, HLD, CKD III, seizure, depression, anxiety, & history of drug abuse, presented to ER with severe leg swelling; wears tight trousers to prevent leg swelling

- Bilateral LE duplex vascular, extensive DVT; admitted to medical floor

- Cough, pleuritic chest pain; no SOB, palpitation, presyncope, syncope, fever

- Started on IV heparin drip

PMH – On baby aspirin x last 2 years;

- Coumadin in the past, Coumadin abruptly stopped during incarceration

- 2012 – RLE DVT, 2 month hospital course, Antiphospholipid syndrome

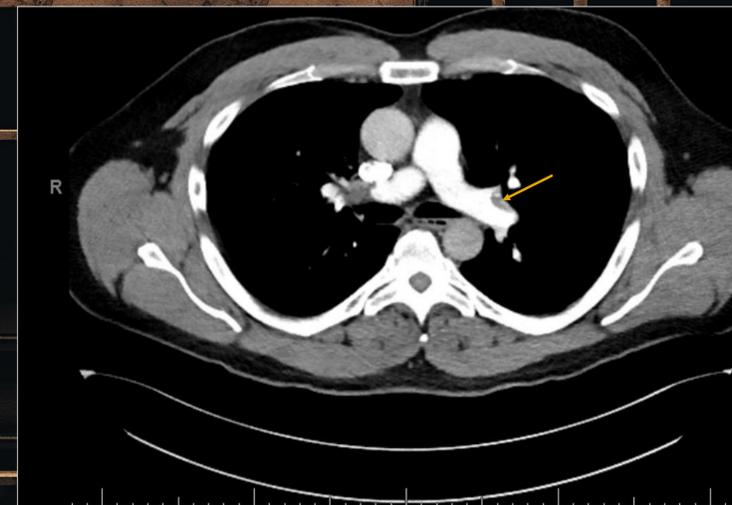
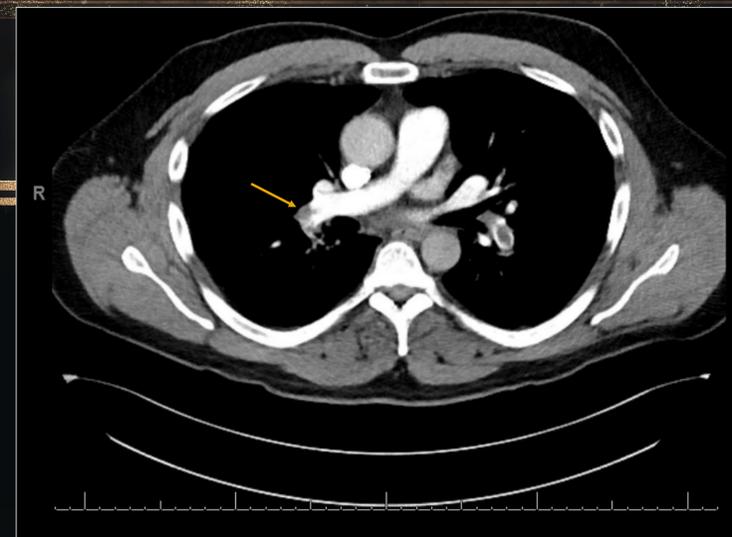
O/E during hospital stay, pt handcuffed to bed, vitals stable

Imaging

-Venous duplex: acute occlusive thrombus in the left femoral, popliteal and gastrocnemius veins

-CT-PE, bilateral pulmonary emboli, moderate thrombus burden, no right heart strain, pulmonary infarct in posterior basal segment of right lower lobe.

CTPE Showing Pulmonary Embolism



• Multiple pulmonary intra-arterial filling defects noted within the distal right pulmonary artery, lobar and segmental branches of bilateral lower lobes, segmental branches of bilateral upper lobes, & medial segmental branch of the right middle lobe, consistent with acute emboli.

• no right heart strain

• pulmonary infarct in posterior basal segment of right lower lobe

Summary

Patient restrained in bed during hospital course through handcuffs, restricting ambulation

Bridging from IV heparin to oral Coumadin, target INR goal 2-3

Patient advised to use lifelong anticoagulation with coumadin

Patient advised to elevate legs

Care issues was communicated to the prison authorities

Readmission after 3 months:

For the past 2 weeks, left lower extremity swollen and painful

He states he was finally able to convince a prison guard to allow him to be evaluated at the hospital

On this new admission, INR dropped to 1.5; he was being checked for INR every month, which ideally should be done more frequently

Conclusion

- Marginalized populations like incarcerated people merits high quality medical management
- Our patient needs lifelong access to Coumadin
- People entering custody are more likely to have limited opportunity for exercise and reduced access to medical treatment
- Medical care of incarcerated reflects an unaddressed area of health inequity

References

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