



# A CASE OF LIFE THREATENING ABDOMINAL WALL HEMATOMA IN A PATIENT ON WARFARIN PRESENTING WITH SEVERE COUGH DUE TO INFLUENZA

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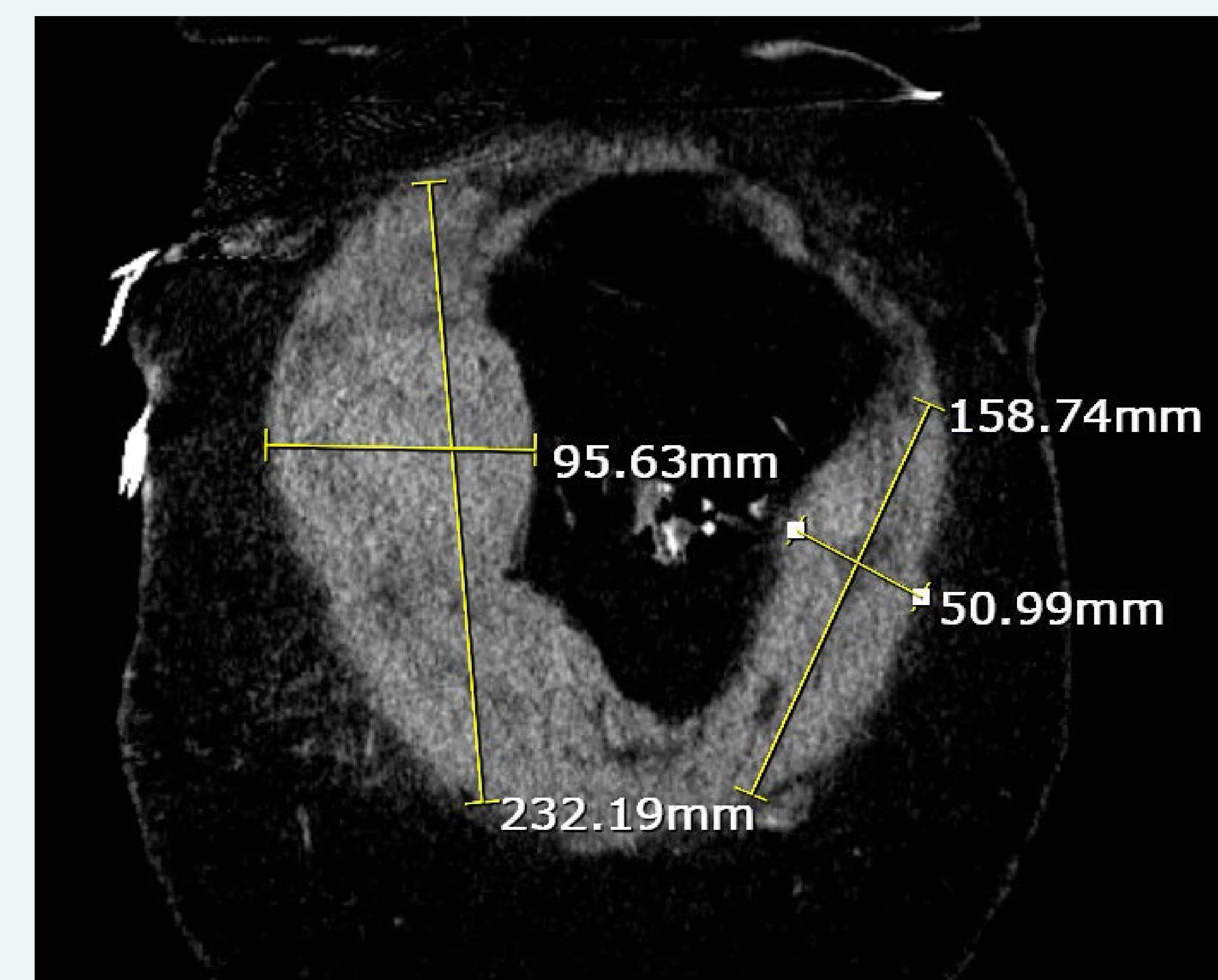
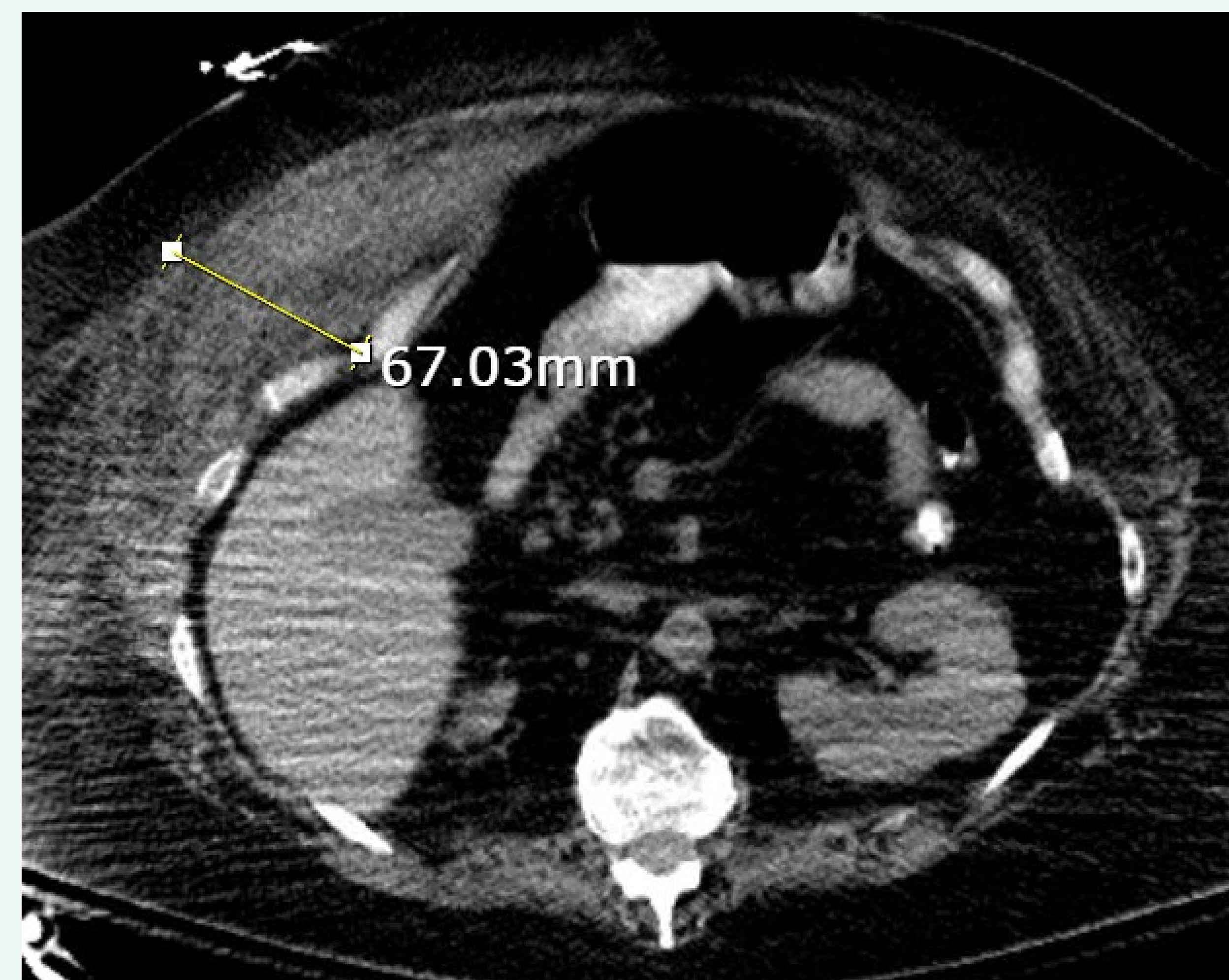
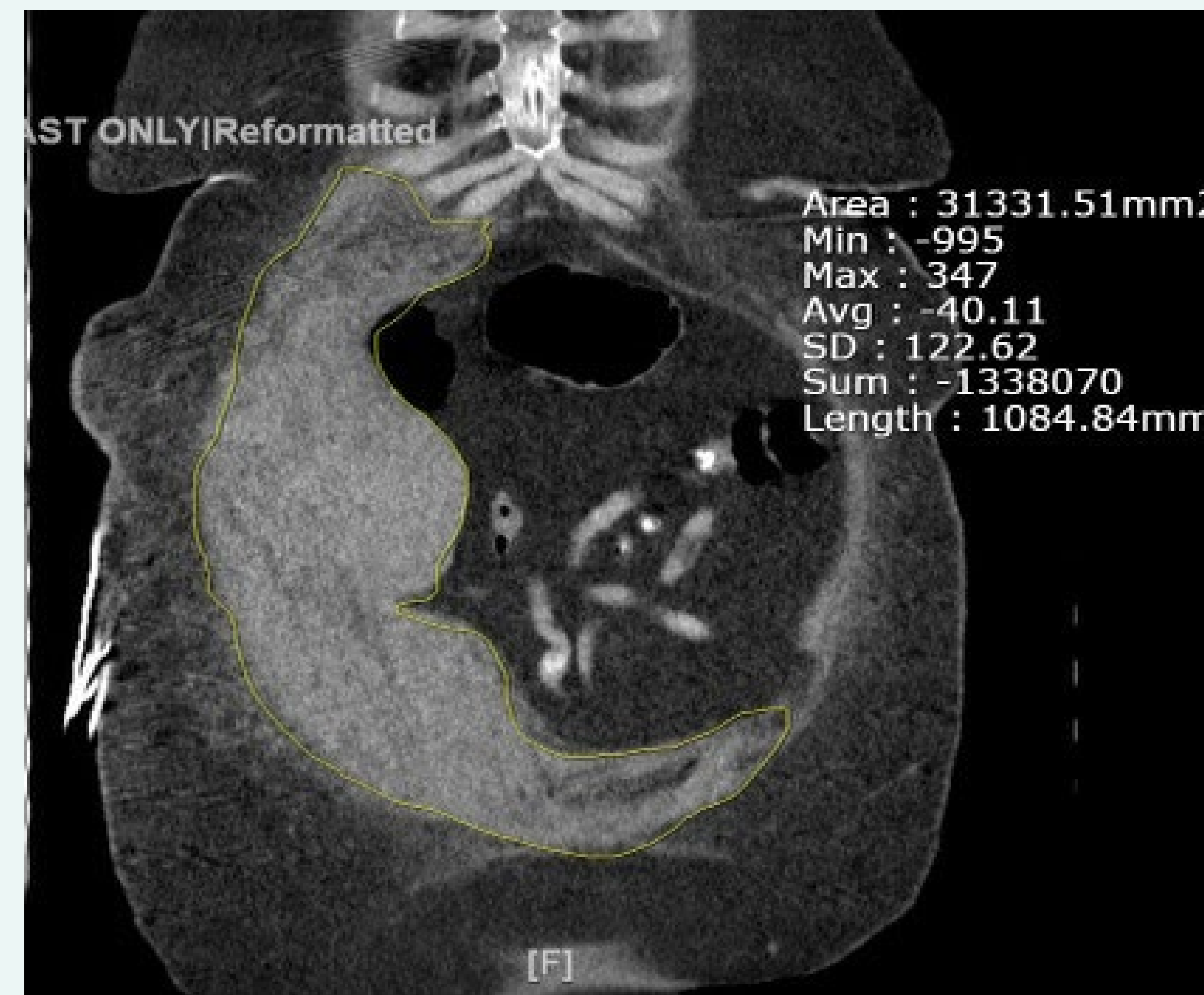
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## INTRODUCTION

Warfarin is a commonly used anticoagulant. However, as with most medications, there are also risks associated with it. The narrow therapeutic window of warfarin puts patients at a much higher risk of unintended bleeding. Additionally, patients with illnesses such as influenza or COVID-19, can also suffer hemorrhagic morbidities related to the increased pressures that are generated from coughing. A synergistic effect is seen when patients on anticoagulation therapy become infected with illnesses such as influenza or COVID-19.

## CASE DETAILS

A 64 year old female on warfarin therapy for prior pulmonary embolism presented with complaints of cough and shortness of breath for three days. She was diagnosed with Influenza A pneumonia and possible superimposed bacterial pneumonia. She was treated with Osetamivir, Ceftriaxone and Azithromycin. At the time of initial work-up it was noted that INR was supratherapeutic (10.06). Vitamin K was administered. On day 2, the patient's hemoglobin (Hgb) dropped significantly from 11g/dl to 6.6 g/dl, which prompted a CT abdomen/pelvis and a blood transfusion. A repeat INR on day 2 was within physiologic limits. Patient denied any complaints. CT abdomen showed "Large right anterior and lateral abdominal wall hematoma with acute and chronic component". Ultimately, the combination of antithrombotic therapy and symptoms of influenza pneumonia eventually resulted in massive hemorrhage leading to large abdominal wall hematoma. She was closely monitored without any interventions and transfused when Hb < 7. She was discharged home when hemoglobin remained stable.



	Presentation	Day 2	Post-Transfusion
INR	10.06	---	1.54
Hgb	11.0 g/dl	6.6 g/dl	7.4 g/dl

## DISCUSSION

The hypo-coagulable state induced by Warfarin usage can lead to hemorrhage and hematoma formation in any patient, location of the hematoma varying situationally. Viral infections, such as influenza or COVID-19, are associated with activation of general coagulation complications. Not only do viral infections cause an increase of inflammatory cytokines, but coughing can also cause an abrupt increase in abdominal wall pressure leading to rupture of small blood vessels contributing to hematoma formation. In this patient, the concurrent effects of warfarin anticoagulation and influenza infection lead to the previously described complications. The supratherapeutic INR and drop in Hgb prompted providers to find a large abdominal wall hematoma that could have went undiagnosed if she was not in healthcare setting which could be life threatening if not identified or swiftly treated.

## CONCLUSION

This case brings to light the importance of having a low threshold for considering the prospect of massive hemorrhage in any patient that is anticoagulated and develops a condition that is associated with increased intracavitary pressures. A prompt diagnosis and the initiation of a standardized treatment plan must be made. Without this, escalation to a situation with life-threatening consequences to the patient is feasible.

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