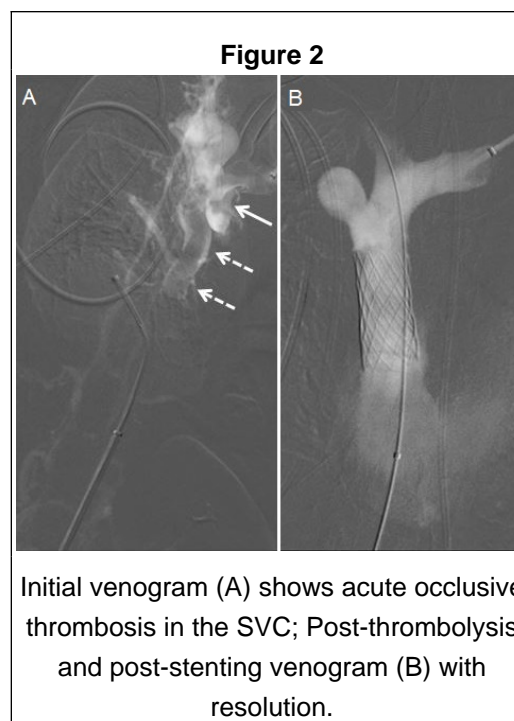
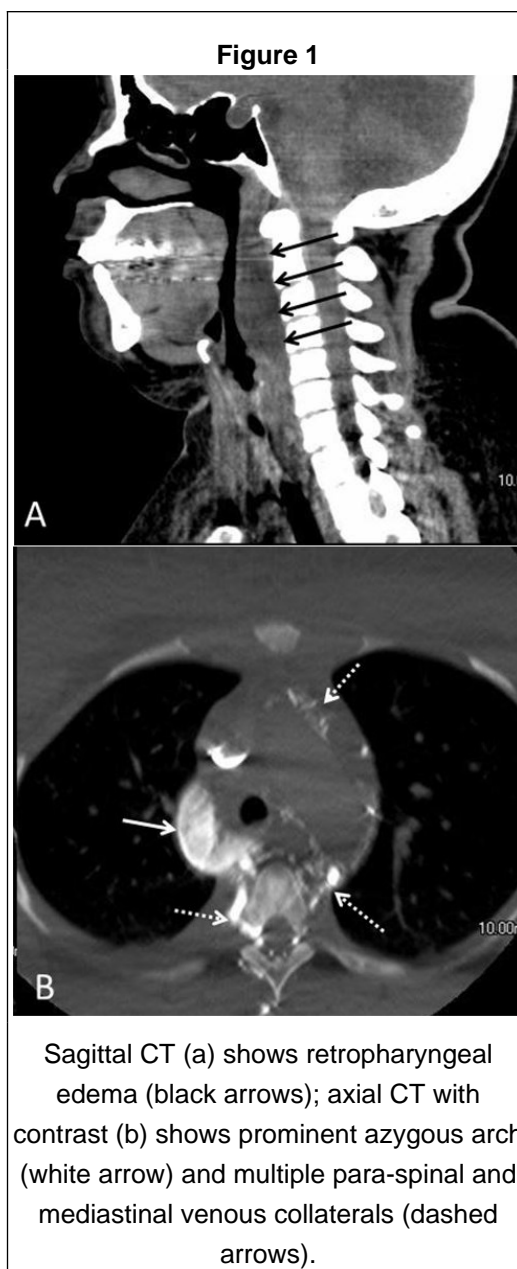


## Introduction

Ventriculoatrial (VA) shunting for hydrocephalus is a common neurosurgical procedure. Complications include shunt failure, infection, and cardiovascular compromise. Superior vena cava syndrome secondary to VA shunting is a rare but devastating complication.

## Methods

A 37 year-old female with history of Dandy-Walker malformation and congenital hydrocephalus managed by two shunts presented with progressive facial swelling, neck and bilateral upper extremity edema, dysphagia, and headache. CT (Fig 1) showed a retropharyngeal fluid collection compromising the airway, extensive venous collaterals in the upper mediastinum and paraspinal regions, a prominent azygous arch, and ventriculopleural catheter disruption. Further studies showed thrombosis of the catheter-bearing SVC and the azygous vein. Direct catheter thrombolysis using tPA was initiated. After 24 hours there was resolution of thrombus burden in both vessels, with remnant severe SVC stenosis at the catheter tip. Patient's symptoms improved significantly following the procedures.



## Results

The etiology of our patient's SVC thrombosis was believed to be multifactorial, including SVC stenosis secondary to long-term VA catheter implantation and recent OCP initiation. SVC syndrome results from disruption of blood flow through the SVC to the right atrium. There has been a significant increase in benign causes of SVC syndrome over the last two decades, thought to be mainly due to the increase in the use of indwelling central venous catheters and cardiac pacemakers.

## Conclusions

Though rare, SVC thrombosis as a consequence of VA shunting is a distressing complication which must be managed emergently.

## Learning Objectives

- 1) Recognize SVC thrombosis as a potential complication of VA catheterization
- 2) Identify the clinical symptomatology of SVC thrombosis due to presence of indwelling catheter
- 3) Refresh their knowledge on the correct management of retropharyngeal edema due to SVC thrombosis, an uncommon presentation

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