



Visual case discussion

“My face is swollen.”: A case report of a woman with superior vena cava syndrome presenting as an allergic reaction

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Keyword:

Superior vena cava syndrome

A 33 year old female with a past medical history of hypertension, diabetes, end stage renal disease, and failed renal transplant presented to the emergency room from her hemodialysis center for what she thought was an allergic reaction. Patient reports symptoms of throat tightness, facial swelling, shortness of breath, and cough that started immediately after a venogram of her left upper extremity AV fistula one day prior. The patient was evaluated at another emergency room the day of the procedure and was diagnosed and treated with Benadryl for suspected allergic reaction. The following day, when her symptoms did not improve, she presented to a different ED. Review of symptoms were negative for fever, rash, headache, lightheadedness, chest pain, palpitations, nausea, vomiting, abdominal pain, or joint pain. She also denied trauma, recent travel, or sick contacts. The patient had bilateral central venous catheters in the past, and recently was found to have high pressure in her AV fistula, which is the reason the venogram was performed. On physical examination, her temperature was 98.3 °F,



Fig. 2. Blue arrow stent from Right subclavian vein across to SVC. Red arrow Left subclavian vein stent. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)



Fig. 1. Blue arrows indicating diffuse appearance. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

heart rate 101 beats per minute, blood pressure 105/75, respiratory rate 17 breaths per minute, and oxygen saturation 95% on room air. Pertinent physical exam findings included facial and neck swelling and labs included BUN/creatinine 72/15.8. A decision was made to obtain a CT of the neck to evaluate the airway, which revealed diffuse subcutaneous edema over lower neck and segments of the chest, diffuse edema in prevertebral and retropharyngeal space, given presence of vascular stents findings suspicious for superior vena cava syndrome (Figs. 1 and 2).

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at [doi:10.1016/j.visj.2017.06.003](https://doi.org/10.1016/j.visj.2017.06.003).

Further reading

- 1 Janessa Laskin, Anthony Cmelak, Steven Meranze, et al. Superior Vena Cava Syndrome. *Abeloff's Clinical Oncology*, 5th Edition. 48, 705–714.
- 2 Yoel Siegel, Russ Kuker. Superior vena cava obstruction in hemodialysis patients: symptoms, clinical presentation and outcomes compared to other etiologies. *Ther Apher Dial*. 2016;20(4):390–393.

Questions

1. What is the most common cause of superior vena cava syndrome?
 - a. Intravascular devices
 - b. Vascular thrombosis
 - c. Thoracic malignancy
 - d. Infectious etiology (syphilis, tuberculosis)
 - e. Vasculitis
2. What is the most common presenting symptom of superior vena cava syndrome?
 - a. Cough
 - b. Chest pain
 - c. Neck or facial swelling
 - d. Headache
 - e. Difficulty swallowing

Answers

1. Thoracic malignancy. Explanation: Thoracic malignancy, more specifically lung cancer, is the leading cause of superior vena cava syndrome. Reference: Laskin Janessa, Cmelak Anthony, Meranze Steven, et al. Superior Vena Cava Syndrome. *Abeloff's Clinical Oncology*, 5th Edition. 48, 705–714.
2. Neck or facial swelling. Explanation: Although the symptoms can vary and be non-specific, the most common symptom was found to be neck or facial swelling. Reference: Siegel Yoel, Kuker Russ. Superior Vena Cava Obstruction in Hemodialysis Patients: Symptoms, Clinical Presentation and Outcomes Compared to Other Etiologies. *Therapeutic Apheresis and Dialysis* 2016; 20 (4): 390–393.

Question 1:

What is the most common cause of superior vena cava syndrome? ?

- ☐ Intravascular devices
- ☐ Vascular thrombosis
- ☒ Thoracic malignancy

Explanation:

Thoracic malignancy, more specifically lung cancer, is the leading cause of superior vena cava syndrome

Reference:

Laskin Janessa, Cmelak Anthony, Meranze Steven, et al. Superior Vena Cava Syndrome. Abelloff's Clinical Oncology, 5th Edition. 48, 705-714.

- ☐ Infectious etiology (syphilis, tuberculosis)
- ☐ Vasculitis

Question 2:

What is the most common presenting symptom of superior vena cava syndrome? ?

- ☐ Cough
- ☐ Chest pain
- ☒ Neck or facial swelling

Explanation:

Although the symptoms can vary and be non-specific, the most common symptom was found to be neck or facial swelling.

Reference:

Siegel Yoel, Kuker Russ. Superior Vena Cava Obstruction in Hemodialysis Patients: Symptoms, Clinical Presentation and Outcomes Compared to Other Etiologies. Therapeutic Apheresis and Dialysis 2016; 20 (4): 390-393.

- ☐ Headache
- ☐ Difficulty swallowing