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ANSWER: SUPERIOR VENA CAVA OBSTRUCTION (SVCO)

Lung cancer is the leading cause of SVCO worldwide. However, as many as 40% of SVCO are due to non-malignant causes, with thrombosis associated with indwelling intravascular catheters accounts for a substantial proportion of these cases.¹

It is postulated that 1%–14% of the patients with indwelling central catheter may developed SVC syndrome. It is calculated that the rate of thrombosis formation is around 0.003%–0.2% daily.¹

The SVCO may remain silent due to the slow gradual formation of endovascular web intraluminally which reduces the flow velocity, eventually leads to thrombosis and obstruction. The development of the efficient collateral pathways for venous return to the heart from the top half of the body, via the azygous, internal mammary and epigastric veins permits the patient to remain asymptomatic or with minimal symptoms until later severe stenotic stage.²

Based on the Stanford classification system, our case can be classified as type III (complete SVCO with collateral flow, without mammary and epigastric veins).³

CT thorax is sometimes performed as a baseline diagnostic tool in cases of central vein obstruction. Central venography is a confirmatory investigation. The aims of central venography are to assess the collaterals, blood flow pattern, blood volume estimation and to provide a better understanding of the anatomy prior to the treatment.

Management of patients with SVCO are dependent on the aetiology of the obstruction but in generally are supportive, which includes steroid and diuretics. Definitive therapy for the primary causes of SVCO include chemotherapy and radiotherapy for cancer, but for the narrowing or stenosis, balloon angioplasty to dilate the endovascular web with or without stenting, thrombolytic and anticoagulant for thrombosis can be tried.⁴ Endovascular stents can be considered in obstruction caused by malignant lesion or when there is a potential life-threatening event caused by SVCO.

ACKNOWLEDGEMENTS:

There are no conflicts of interest to declare. This research was supported by PUTRA Grant no: GP-IPS/2018/9663600 from Universiti Putra Malaysia. Consent has been obtained from patients in regards to the images and details included in the report.

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