

## Brachiocephalic-Superior Vena Cava Metallic Stenting in Malignant Superior Vena Cava Obstruction

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### Abstract

**Introduction:** We studied the effectiveness of unilateral brachiocephalic (BC)-superior vena cava (SVC) metallic stent therapy in malignant SVC obstruction. **Materials and Methods:** From November 1998 to February 2002, SVC stenting was performed in 11 patients with symptomatic malignant SVC obstruction. There were 10 males and 1 female, with a mean age of 64.2 years (range, 37 to 78 years). The computed tomography (CT) scan and superior vena cavogram findings of all patients showed malignant SVC obstruction. Both internal jugular veins were patent in all patients by ultrasound. SVC stenting was performed with Wallstent (Boston Scientific, Minneapolis, MN, USA) in 10 patients and Memotherm stent (Bard angiomed, Wachhausstraße, Germany) in 1 patient. Pressure gradient, duration of the procedure, peri-procedural morbidity and mortality and the general well-being of the patients were reviewed. **Results:** SVC stenting was performed at a mean duration of 9.6 days (range, 3 to 30 days) after presentation. All were technically successful with 10 across the right BC-SVC and 1 across the left BC-SVC. There was no peri-procedural morbidity or mortality. The entire procedure was completed at a mean duration of 115 minutes (range, 75 to 225 minutes) with good angiographic and pressure results. Immediate symptomatic relief of SVC syndrome was achieved in 10 patients who had received prompt work-up and stenting 3 to 18 days after presentation. The remaining patient, who received work-up and stenting 30 days after presentation, remained dyspnoeic and died of pneumonia 7 days after the procedure. **Conclusion:** Unilateral BC-SVC metallic stenting is an effective measure in malignant SVC obstruction. Prompt pre-stenting work-up and stenting are recommended to achieve a longer symptomatic relief period.

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**Key words:** Endovascular therapy, Self-expandable stent, Superior vena cava syndrome

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