

## **To evaluate the effect of catheter diameter on left innominate vein stenosis in breast cancer patients after placement of totally implantable venous access ports” Song et al (2018).**

### Abstract:

**PURPOSE:** To evaluate the effect of catheter diameter on left innominate vein stenosis in breast cancer patients after placement of totally implantable venous access ports.

**MATERIALS AND METHODS:** Totally implantable venous access ports were placed via the left internal jugular vein in 241 women with right breast cancer from January 2010 to December 2014 (mean age, 51.5 years; range, 19-83 years). There were 67 totally implantable venous access ports with a 6.5F catheter and 142 totally implantable venous access ports with an 8F catheter. Medical records were retrospectively reviewed. The presence of significant left innominate vein stenosis and tip location of the catheter was evaluated on chest computed tomography images. Statistical analysis was performed.

**RESULTS:** Left innominate vein stenosis developed in 1 (1.5%) and 13 (9.2%) patients after implantation with 6.5 and 8F catheters, respectively. Difference in the cumulative incidence of left innominate vein stenosis was statistically significant between the two groups (log rank test p-value: 0.002). In Cox regression analysis, the hazard ratio for left innominate vein stenosis was 20.766 ( p = 0.005) for an 8F catheter.

**CONCLUSION:** The incidence of left innominate vein stenosis was higher after implantation of totally implantable venous access ports with 8F catheter rather than with 6.5F catheter. Considering that using 8F catheter versus 6.5F catheter has no advantage in terms of performance of the device, the results of our study suggest that ports with catheters >7F should be avoided.

### Reference:

Song, M.G., Seo, T.S., Kim, Y.H., Cho, S.B., Chung, H.H., Lee, S.H. and Jung, E. (2018) Effect of catheter diameter on left innominate vein in breast cancer patients after totally



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implantable venous access port placement. The Journal of Vascular Access. March 1st. .

doi: 10.1177/1129729818765062.

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