The incidence of central vein stenosis in breast cancer patients was higher after placement of TIVPs via the left IJV” Song et al (2015).

Reference:


Abstract:

PURPOSE: To evaluate the risk factors for central vein stenosis after placement of the totally implantable venous access ports (TIVPs) and the clinical relevance of this condition in breast cancer patients.

MATERIALS AND METHODS: TIVPs were placed in 191 women with breast cancer via the internal jugular vein (IJV) from January 2009 to December 2012 (mean age, 51.42 years) by left-side (n = 102) and right-side (n = 89) approaches. Medical records were retrospectively reviewed. The presence of significant central vein stenosis, tip location of the catheter and retrosternal space were evaluated on chest computed tomography images. Statistical
analysis was performed.

RESULTS: Central vein stenosis developed in 1 and 14 patients after placement via the right and left IJV, respectively. Differences in the cumulative incidence of central vein stenosis were statistically significant between left- and right-side approach groups (log rank test p-value: 0.009). In Cox regression analysis, the hazard ratio for central vein stenosis was 9.441 (p = 0.031) in the left-side approach. The distance between the sternum and the left innominate vein was found to be significantly and independently related to the development of central vein stenosis (p = 0.026). The hazard ratio of distances between the sternum and left innominate vein <16 mm was 10.133 (1.319-77.841).

CONCLUSIONS: The incidence of central vein stenosis in breast cancer patients was higher after placement of TIVPs via the left IJV. When left-side TIVP placement is required in a patient with right-side breast cancer, the possibilities of left innominate vein stenosis should be considered.

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