Both the percutaneous and cut-down technique are safe and effective for TIVAD implantation. Operative times were shorter and the odds of implantation failure higher for cephalic cut-down. As implantation failure is common, surgeons should familiarize themselves with both techniques” Matiotti-Neto et al (2017).

Abstract:

The superiority of surgical cut-down of the cephalic vein versus percutaneous catheterization of the subclavian vein for the insertion of totally implantable venous access devices (TIVADs) is debated. To compare the safety and efficacy of surgical cut-down versus percutaneous placement of TIVADs. This is a single-institution retrospective cohort study of oncologic patients who had TIVADs implanted by 14 surgeons. Primary outcomes were inability to place TIVAD by the primary approach and postoperative complications within 30 days.

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Multivariate analysis was performed by logistic regression. Secondary outcomes included operative time. Two hundred and forty-seven (55.9%) percutaneous and 195 (44.1%) cephalic cut-down patients were identified. The 30-day complication rate was 5.2 per cent: 14 patients (5.7%) in the percutaneous and nine (4.6%) in the cut-down group. The technique was not a significant predictor of having a 30-day complication (odds ratio = 0.820; 95% confidence interval 0.342-1.879). Implantation failure was observed in 16 percutaneous patients (6.5%) and 28 cut-down patients (14.4%) (adjusted odds ratio for cephalic vs cut-down = 2.387; 95% confidence interval 1.275-4.606). The median operative time for percutaneous patients was 46 minutes (interquartile range = 35, 59) versus 37.5 minutes (interquartile range = 30, 49) for cut-down patients(P < 0.0001). Both the percutaneous and cut-down technique are safe and effective for TIVAD implantation. Operative times were shorter and the odds of implantation failure higher for cephalic cut-down. As implantation failure is common, surgeons should familiarize themselves with both techniques.

Reference:

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