

Totally implantable venous access devices with Groshong silicone catheters, if inserted via the internal jugular vein, have a potential risk for late catheter fracture” Saijo et al (2019).

Abstract:

BACKGROUND: Totally implantable venous access devices are valuable tools for total parenteral nutrition, chemotherapy, and long-term intravenous therapy. However, late catheter fracture is a well-known complication of totally implantable venous access device, particularly in Groshong silicone catheter. Recently, a specific type of totally implantable venous access device made with Groshong silicone has been introduced to facilitate power injection of contrast medium for enhanced computed tomography.

CASES DESCRIPTION: We reported three cases of catheter fracture in power-injectable Groshong silicone totally implantable venous access device. From May 2012 to August 2014, 66 patients underwent power-injectable Groshong silicone totally implantable venous access device implantation at our institution, with a median follow-up of 20.1 (range 0.2-58.1) months. The catheters in all patients were inserted into the internal jugular vein under ultrasound guidance and were connected to the port implanted in the upper chest through the subcutaneous tunnel. Chemotherapy was administered using these routes. Fractures of all three cases specifically showed a torn catheter section: smooth surface on one side, and a rough edge on the other side of the catheter, suggesting that long-term repeated stretch force may be related with the mechanism of fracture.

CONCLUSION: Totally implantable venous access devices with Groshong silicone catheters, if inserted via the internal jugular vein, have a potential risk for late catheter fracture.

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Reference:

Saijo, F., Mutoh, M., Tokumine, J., Yoshinobu, O., Hama, H., Namima, T., Shibahara, M. and Tokumura, H. (2019) Late fracture of Groshong ports: A report of the three cases. *The Journal of Vascular Access*. March 11th. .

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