

Radiological Placement of 211 Central Venous Catheters: Outcome and Complications

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Abstract

A prospective study of 211 central venous catheters consecutively placed in 186 patients under radiological guidance was conducted over an 18-month period. The majority (64%) of our patients were at risk for acute complications or failure. These risks included bleeding tendency, distorted anatomy, or previous complicated lines and failed "blind" percutaneous attempts. We employed the subtraction angiographic technique for venous mapping or ultrasound localisation to guide our initial puncture. The accumulated catheter experience was 15,295 days and the median catheter survival time was 166 days. The success rate was 100%. Our acute complications included 1 case of arterial puncture (0.5%), 2 pneumothoraces (1.0%), and 13 patients (6.1%) with haematoma or prolonged oozing at the puncture site. The calculated infection rate was 0.25 episodes per 100 catheter days at risk. These results are comparable to those reported in the literature. We conclude that central venous catheterisation using imaging guidance is accurate and safe, and should be the method of choice especially in high-risk patients.

Ann Acad Med Singapore 1999; 28:481-7

Key words: Angiographic technique, Catheter survival, High risk, Results, Ultrasound

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