

BOOK REVIEW

THE VENA CAVA CATHETER. C. BURRI AND D. GASSER. Volume 54, *Anaesthesiology and Resuscitation*, pp. 126, Springer Verlag Berlin-Heidelberg, New York, 1971.

CANNULATION OF THE VENA CAVA for the purpose of measuring central venous pressure or to provide intravenous nutrition has become an accepted procedure. In this well written monograph the authors present a review of the World literature on this subject (220 references), based on about 11,000 cases as well as the results of a prospective study of 3,241 cases in nine medical centres in Europe. The technical discussion considers approaches via the vena basilica, the external jugular and the subclavian vein, the vena brachiocephalic and the leg veins. There is a lengthy discussion of complications, the main problems being thrombosis, occasionally associated with emboli and breakage of the catheter.

The prospective study is presented in detail: in 70 per cent of these cases the cava catheter was in place for 4 to 21 days, in 7 per cent over 21 days and in 7 patients over 8 weeks. Insertion of the catheter was successful in 78 per cent of cases on the first try. X-ray control revealed a 15 per cent incidence of faulty positions of the catheter and the main problems are illustrated. Introduction via the external jugular was slightly more prone to these problems than catheter through arm veins or the subclavian veins. The cephalic vein approach had an incidence of 40 per cent faulty positions in a small group of patients. The incidence of pleural injuries with subclavian punctures (1,098 cases) was 0.82 per cent.

Thrombosis was encountered in 6.9 per cent of the patients, superficial in 5 per cent. The incidence was higher when the catheter had been introduced with a cut-down. Subjective complaints were least with subclavian catheters. Of the 373 patients autopsied, 24 per cent had superficial or deep thrombosis and the catheter was contributory to the patient's death in three patients. There were three broken catheters in this series, all successfully removed operatively.

The authors recommend, amongst others, the sterile treatment of the puncture site, avoidance of cut-down, radiographic control of the catheter position and the approach via the basilic vein for the inexperienced.

This valuable review of a timely subject could have gained from a more detailed treatment of the anatomy in relation to the approaches of the vena cava. The English summary complements the German text which represents a valuable source of reference for those engaged in the care of seriously ill patients.

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