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Monitoring

ARTERIAL PUNCTURE AND TRAUMA
Monitoring arterial blood gases, intra-arterial blood pressure, and cardiac output has become common practice in recent years and has, on occasion, caused complications such as injuries to radial and other arteries. Two patients who developed partial and complete ischemia of the hand secondary to arterial cannulation are described. In the face of rapidly developing ischemia, intra-arterial injection of a lidocaine-papaverine "cocktail" and early removal of the arterial catheter could prevent loss of the thumb and one or more fingers. Teflon catheters with an outer diameter of 1 mm and an inner diameter of 0.6 mm are recommended. Patency of the ulnar artery is mandatory and should be established before puncture of the radial artery is attempted. Factors that may favor occurrence of complications are extremes of

age, shock, and repeated attempts at cannulation, particularly with disregard to aseptic technique, too strong or prolonged compression of the wrist after removal of the catheter, too weak and too short compression, subintimal or intramural injection, prolonged use of indwelling catheters, tendency toward thrombosis, diabetes, and pre-existing arteriosclerotic or ischemic disease of the extremity. (*Schwander, D., and Schwander, A.: Arterial Trauma in Anesthesia and in the Intensive Care Unit—Surgical Treatment, Z. Gefaesskrkh* 2:330, 1973.)
ABSTRACTER'S COMMENT: The incidence of complications is, in the author's words "not as frequent as one might anticipate." An incidence of two impressive cases, beautifully illustrated in color photographs, in approximately 600 procedures seems to be high indeed.