

Transesophageal Echocardiography or Fluoroscopy During Port-Access Surgery?

S Mierdl,*^{MD}, D Meininger,*^{MD}, C Byhahn,*^{MD}, T Aybek,**^{MD}, P Kessler,**^{MD, PhD}, K Westphal,**^{MD, PhD}

Abstract

Introduction: In Port-Access cardio-surgical procedures, both intraoperative transesophageal echocardiography (TEE) and fluoroscopy can be used for placement of the catheters and cannulae needed for cardiopulmonary bypass. Our study sought to clarify whether it is possible to rely exclusively on TEE for catheter placement without increasing the risk for the patient. **Materials and Methods:** Forty patients underwent cardiac surgery with the Port-Access system. Fluoroscopy as well as TEE were used for placement of the transjugular and transfemoral catheters required for cardiopulmonary bypass. The time required for fluoroscopy was recorded, as were any complications during cannulation and cardiopulmonary bypass. **Results:** The average fluoroscopy time was 10.7 ± 12.1 min. Fluoroscopy time required for placement of the coronary sinus and pulmonary vent catheters could be reduced to zero early in the course of the study. Once we had gained enough experience with TEE, fluoroscopy for placement of the transfemoral catheters was also no longer necessary. During cannulation, 3 patients suffered complications requiring immediate surgical intervention. These complications were all diagnosed by TEE. **Conclusion:** Our data suggest that positioning of the coronary sinus and the pulmonary vent catheters is safe and practicable with TEE alone. Nonetheless, if TEE imaging is poor or fails, fluoroscopy has still a place in Port-Access surgery and should always be available intraoperatively.

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* Resident in Anesthesiology

** Associate Professor in Anesthesiology

Department of Anesthesiology, Intensive Care Medicine and Pain Control

** Senior Surgeon

Department of Thoracic and Cardiovascular Surgery

J W Goethe-University Hospital

Frankfurt, Germany

Address for Reprints: Dr Klaus Westphal, Department of Anesthesiology and Intensive Care Medicine, Katharina-Kasper-Klinken, Richard-Wagner-Str 14, D-60318 Frankfurt, Germany.

E-mail: klaus.westphal@em.uni-frankfurt.de