



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

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بعض الوثائق الأصلية تالفة



شبكة المعلومات الجامعية



بالرسالة صفحات
لم ترد بالأصل

**Role of Transesophageal Echocardiography in
Weaning from Cardiopulmonary Bypass in Mitral
Valve Surgeries**

THESIS

**Submitted for Partial Fulfillment of
M.D Degree in Anaesthesiology**

BY

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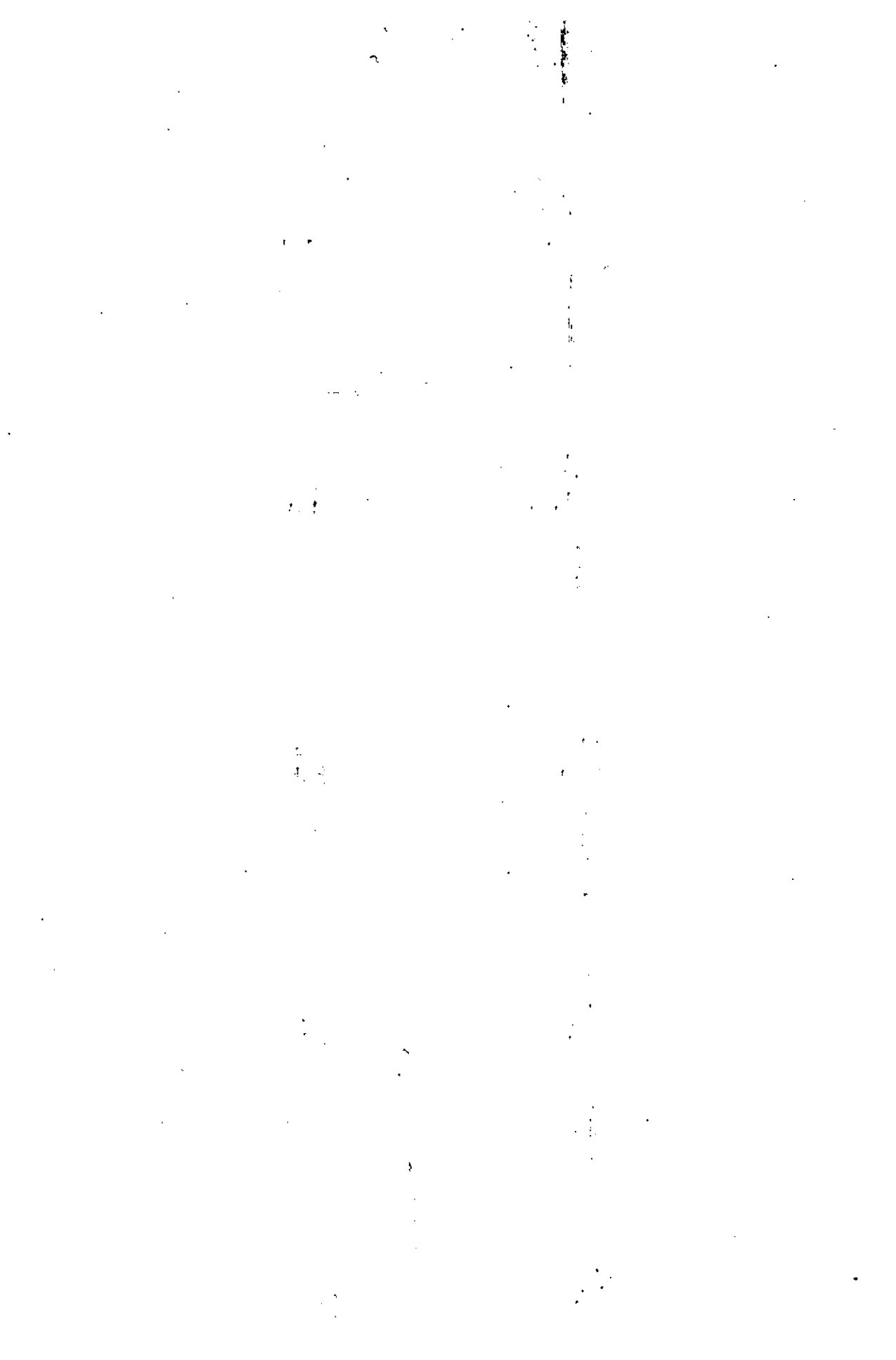
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BAMMA

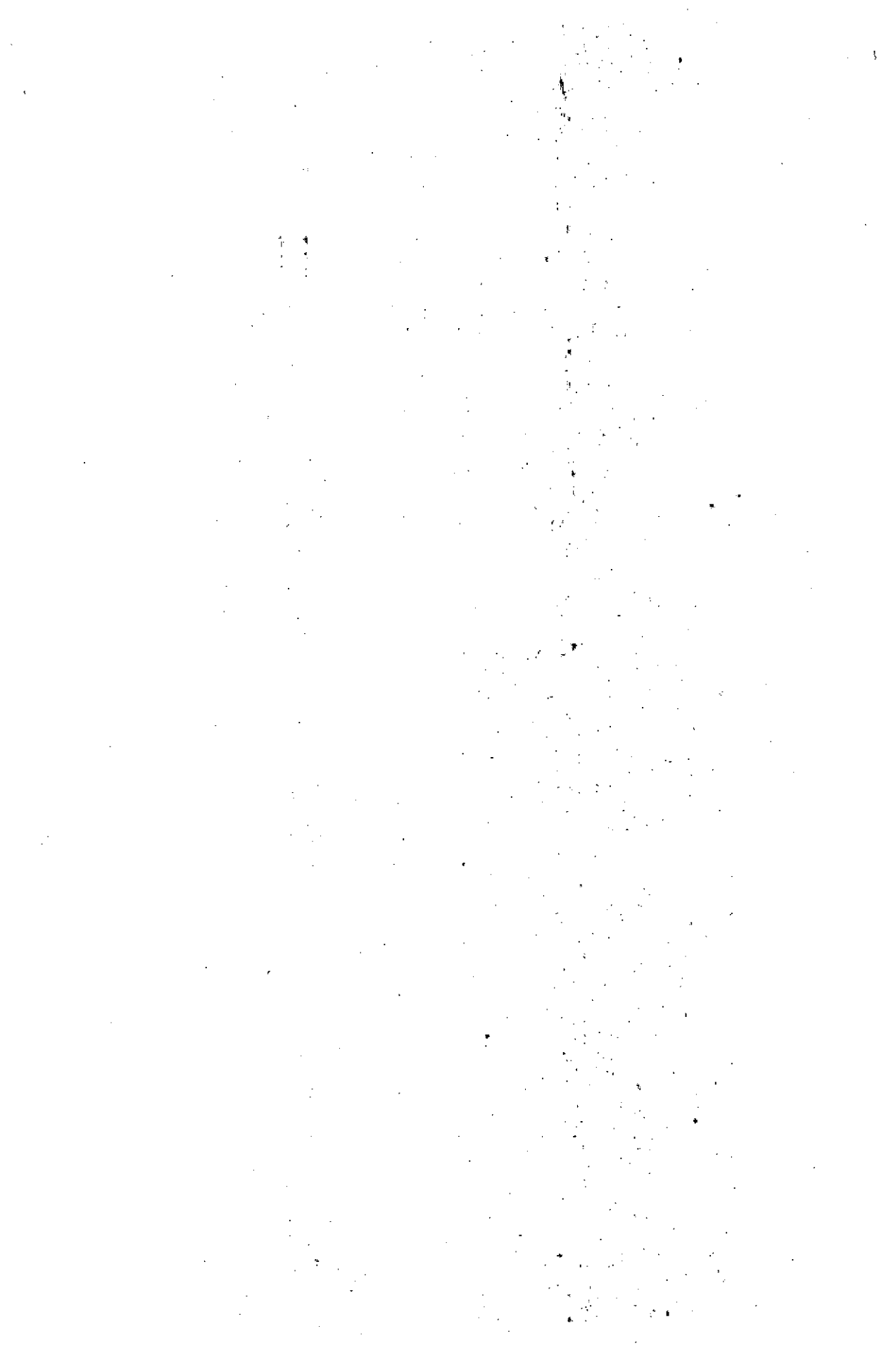


بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا
مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ
الْحَكِيمُ

صدق الله العظيم

سورة البقرة آية (٣٢)



Role of Transesophageal Echocardiography in Weaning from Cardiopulmonary Bypass in Mitral Valve Surgeries

Thesis

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2001



Role of Transesophageal Echocardiography in- Weaning from Cardiopulmonary Bypass in Mitral Valve Surgery

Introduction:

Cardiac valve diseases especially mitral valve lesions are a challenging medical and surgical problem in our country. The complications of mitral valve disease are diverse ranging from left ventricular failure in mitral regurge to pulmonary hypertension and right ventricular failure in mitral stenosis (*Pieper, et al., 1996*).

Transesophageal echocardiography plays an important role in the differential diagnosis of anatomical and functional pathological patterns of the mitral valve apparatus. Several studies have demonstrated the diagnostic value of Transesophageal echocardiography with respect to the pre- and postoperative evaluation of the valve function and thereby the evaluation of the surgical result (*Loick, et al., 1997*).

Weaning from the cardiopulmonary Bypass is of particular interest to the anesthesiologist and they tried to use many drugs as inotropes and vasodilators to help them to the correct decision in weaning especially in mitral valve surgeries. We hope that by the tremendous use of the transesophageal echocardiography in cardiac surgery, we can eliminate and deal in the correct way with the problems that face the anesthesiologist in weaning and this would result in the best interest for our patients

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Review of Literature

- Anatomy of the heart.
- Physiology of the mitral valve and cardiovascular system.
- Mitral valve diseases
- Transesophageal echocardiography (types and uses)

Aim of the work:

The purpose of this study is to figure out the role of Transesophageal echocardiography during weaning from CBP in the mitral valve surgery and how TEE can guide the anesthesiologist to the correct decision for proper weaning from the cardiopulmonary bypass.

Patient and method: Patient selection: Sixty adult patients from both sexes with mitral valve disease will be selected. Patients with significant valve lesion other than mitral valve disease will be excluded from this study. Also patients with ischemic heart disease will be excluded.

After the standard technique of premedication and induction of anesthesia, a first battery of measurements using transesophageal echocardiography is taken, during weaning from the cardiopulmonary bypass another battery of measurement is taken to guide the anesthesiologist for the correct decision, before the conclusion of the surgery a third battery of measurement is taken to evaluate the interventions done by the anesthesiologist.

Measurements:

The following measurements are taken three times by the use of the Transesophageal Echocardiography:

1. Just before cardiopulmonary bypass.
2. During weaning from cardiopulmonary Bypass.

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3. Before the conclusion of the surgery and just before transfer of the patient to the ICU.

The measurements are

- Intraoperative Heart rate, Blood pressure, central venous pressure,
- Electrocardiogram, Oxygen Saturation.
- Paravalvular leak.
- Residual mitral regurgitation (malfunction of the valve)
- ✓ - Trans-mitral pressure gradient.
- ✓ - Mitral valve area
- Left Ventricular End Diastolic Volume (LV_{EDV}).
- Left Ventricular End Systolic Volume (LV_{ESV}).
- Systemic Vascular Resistance (SVR).
- Cardiac Index.
- Cardiac out put (C.O.P)
- Ejection Fraction..

Results:

Discussion:

Summary and conclusion:

Arabic Summary:

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References:

1. Loick HM, Poelaert J, Van Aken H. Der diagnostische Stellenwert der transösophagealen Echokardiographie in Anästhesie und Intensivmedizin. Anaesthesist 1997, 46: 504-14.
2. Pieper EPG, Hellemans IM, Hamer HPM, et al., Biplane transoesophageal color - flow doppler imaging in assessing severity of Mitral regurgitation. Influence of hemodynamic circumstances and mechanism of regurgitation. J Cardiothorac vasc Anesth 1996; 10: 748-55.

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