

بسم الله الرحمن الرحيم



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



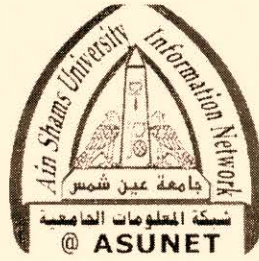
شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

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Transesophageal echocardiography in assessment of surgical and non surgical intervention in some congenital heart diseases

Thesis

*Submitted For Partial Fulfillment Of MD Degree
In Cardiology*

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INTRODUCTION

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Introduction

Non invasive cardiac imaging specifically two- dimensional echocardiograph, has dramatically altered the practice of cardiology in general and specific in pediatric cardiology ⁽¹⁾.

There is no doubt that the use of two -dimensional color Doppler transesophageal echocardiography (TEE) has tremendously enhanced our understanding of cardiac and vascular events in virtually all clinical situations encountered in cardiac surgery and anesthesia ⁽²⁾.

Thus, interest in the operative use of TEE has increased rapidly among anesthesiologists, cardiac surgeons, and intensive care unite specialists, as enable as among cardiologists in the Unite States, Europe, and Japan ⁽²⁾.

The vast majority of these initial reports focused on the adult patient because the width of the endoscopic probe.

The first report of the use of a pediatric size transesophageal echocardiography in 1989 was encouraging and led to further report demonstrating its applicability, feasibility and importance in even the smallest infant with congenital heart disease ⁽³⁻⁷⁾.

The rapidly expanding role of TEE in the management of congenital heart disease includes guidance of interventional cardiac catheterization procedures and monitoring of the results⁽⁸⁾.



REVIEW OF LITERATURE

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REVIEW

Congenital heart malformations are not a fixed defects present at birth, but are dynamic anomalies that originate in fetal life, alter considerably during neonatal and later postnatal development, sometimes survive naturally to adulthood. Some of them are amenable to surgery that improves the prospect of natural adult survival, or can allow the patient to reach adulthood chiefly or solely due to surgical intervention ⁽⁹⁾.

Accordingly, these disorders should be considered not only in terms of age of onset, but also in terms of the age range that survival now permits ⁽⁹⁾.

Incidence and etiology of congenital heart disease:

The incidence of congenital heart disease (CHD) is approximately 8 per 1000 live births ⁽¹⁰⁾. Most of the infants born alive with cardiac defects have anomalies that did not represent a threat to life, at least during infancy. Almost one-third, or 2-6 per 1000 live births, however, have critical disease, defined as a malformation severe enough to result in cardiac catheterization, cardiac surgery, or death within the first year of life ⁽¹¹⁾. Today, with early detection and proper management, the majority of

infants with critical disease can be expected to survive the first year of life ⁽¹¹⁾.

Table (1) incidence of specific congenital heart defects ⁽¹⁰⁻¹³⁾.

Defect	% of cases (average)
Ventricular septal defect (VSD)	28.3
Pulmonary stenosis (PS)	9.5
Patent ductus arteriosus(PDA)	8.7
VSD with PS (includes tetralogy of fallot)	6.8
Atrial septal defect(ASD) (secundum)	6.7
Aortic stenosis	4.4
Coarctation of aorta	4.2
Atrioventricular(AV)canal	3.5
Transposition of great arteries(TGA)	3.4
Aortic atresia	2.4
Truncus arteriosus	1.6
Tricuspid atresia	1.2
Total anomalous pulmonary venous connection	1.1
Double outlet right ventricle(DORV)	0.8
Pulmonary atresia without VSD	0.3

* Total number of cases =107-590