سامية محمد مصطفى

شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

سامية محمد مصطفى

شبكة المعلومات الجامعية

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التوثيق الالكتروني والميكروفيلم

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سامية محمد مصطفى

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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سامية محمد مصطفى

شبكة المعلومات الجامعية

بالرسالة صفحات لم ترد بالأصل

PROFILE OF OPEN AND CLOSED HEART SURGERY IN ASSIUT UNIVERSITY HOSPITAL

THESIS

SUBMITTED FOR PARTIAL FULFILLMENT OF MASTER DEGREE
IN GENERAL SURGERY

BY

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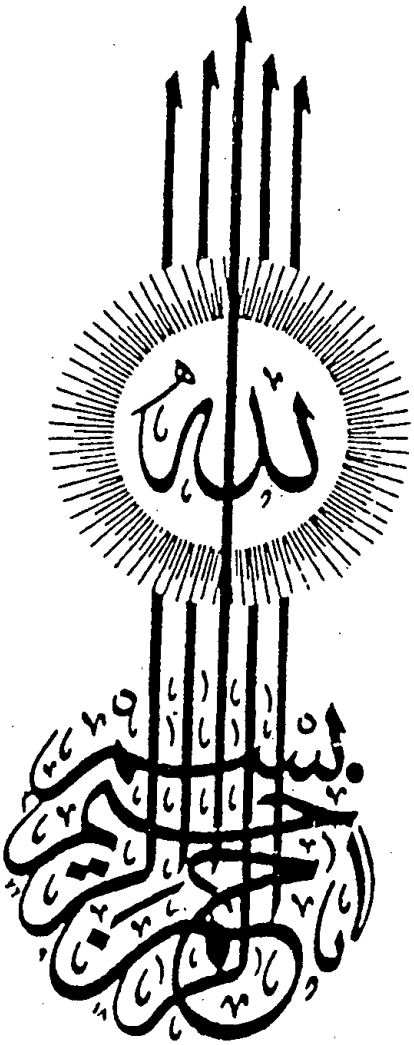
2001



علم الإنسان ما لم يعلم

صدق الله العظيم

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A. Ghoneim

2001

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INTRODUCTION

Introduction

From more than half of a century, the cardiac surgery was evolving by the first attempts for surgical treatment of mitral stenosis by digital closed valvotomy by Cutler in Boston (1923) and Souttar in London (1925) then it became a clinical possibility when Murry, Bailey and Harken in U. S. and Brock in England (1948) achieved modest success in the closed valvotomy.

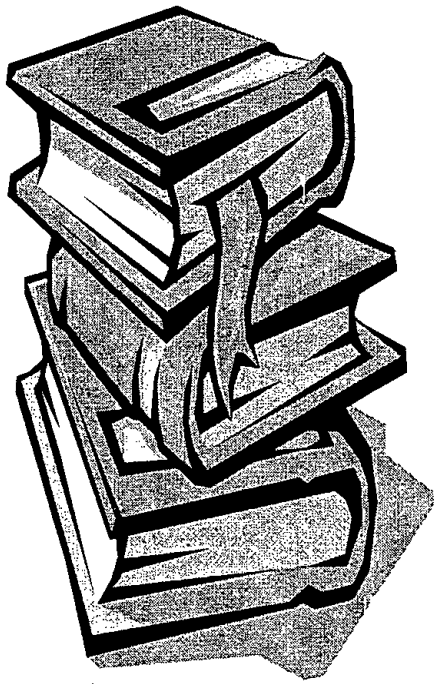
But still the major dream of every surgeon is to operate with safety under direct vision on open, bloodless, motionless heart, which was first achieved by Dr. John Gibbon in Philadelphia (1953) who performed the first successful open-heart surgery by the aid of cardiopulmonary bypass using a heart-lung machine for closure of atrial septal defect in 18 years old girl.

Then progress escalated by Walton Lillehie in Minnesota performing the first series of open heart surgeries in 1956 followed by Merendino in Seattle few months later.

Nowadays, open-heart surgery utilizing cardiopulmonary bypass techniques has become a routine procedure especially after introduction of the new highly sophisticated technology and equipments used for early diagnosis and management of a wide variety of haemodynamic disturbances during and after the operation resulting in progressive decrease in the morbidity and mortality associated with such operations.

Aim of work

Our objective is to display our experience in cardiac surgery in Assuit University Hospital with special emphasis on the open-heart surgery and to submit the revealing results of our operations to the evaluation in the light of data from other cardiac centers.



REVIEW OF LITERATURE

REVIEW OF LITERATURE

I- MITRAL VALVE SURGERY

HISTORIC REVIEW:

In (1923), Cutler and Levine after detailed study of mitral valves, performed the first mitral valvotomy digitally, also Souttar in (1925) did it. Later on, at 1959, mechanical mitral commissurotomy using TUBB's dilator was developed, better in dilatation of stenosed valves but increased the incidence of mitral insufficiency after dilatation (Spencer F. C., Galloway A. C., and Colvin S. B., 1995)[1].

The development of open heart surgery by Gibbon (1953) and the subsequent improvement in its technology allowed the use of cardio-pulmonary bypass in open mitral valvotomy in most centers by 1970 to 1972 (Spencer F. C., et al. 1995)[1].

The development of Starr-Edwards ball valve prosthesis in 1961 began the modern era of prosthetic valve replacement. Immediately, it was discovered that all mechanical valves required permanent anticoagulation. Disk prosthesis, which has larger cross-sectional area and less heamolysis than ball valves, was developed. Now, there is wide variety of mechanical heart valves (Spencer F. C., et al, 1995)[1]..

In the late 1960s, Carpentier in Paris and Hancock in U.S. developed the gluteraldehyde-preserved porcine bioprosthetic valves. It was quickly noted that bioprosthetic valves have a much lower frequency of thromboembolism than mechanical valves and often not require permanent anticoagulation but unfortunately, long term durability has now found to be disappointing (Spencer F. C., et al, 1995)[1]..

During the 1960s, there were initial trails for mitral valve reconstruction as leaflet plication by McGoon in (1960), and posterior leaflet suture annuloplasty by Kay in 1963 (Spencer F. C., et al, 1995)[1].

During 1970s, major contributions to mitral valve reconstruction were done by Carpentier in France and Duran in Spain. They developed the quadrangular excision of a diseased segment of the posterior leaflet, chordal shortening or reimplantation, leaflet transposition and the use of annuloplasty ring for correction of annular dilatation. While,Carpentier used a rigid ring, Duran favored a flexible one (Duran CMG, Pomar JL, and Cucchaira G, 1978)[2].

The different methods of mitral valve repair were well described in the report by Carpentier in 1983 in his "Honored Guest Address" to the American Association for Thoracic Surgery (Spencer FC, et al, 1995)[1].

MITRAL STENOSIS

Etiology:

In an extensive report describing pathologic changes in cardiac valves, Roberts (1992) concluded that the dominant cause of mitral stenosis was rheumatic heart diseases (Roberts WC, 1992)[3]. Also, left atrial myxoma may cause mitral stenosis (Nasser WK et al, 1972)[4].

Other rare causes of mitral stenosis include congenital mitral stenosis either at the valve or by supravalvular fibrous ring (Ruckman and VanPraagh, 1979)[5].

Pathology:

Although the rheumatic inflammatory process produces pancarditis but permanent injury is predominantly in the cardiac valves, especially the mitral valves (Roberts WC, 1992)[3]. Rheumatic valvulitis produces at