

**RETROSPECTIVE STUDY OF CASES OF HEART
DISEASE WITH PREGNANCY.DURING THE YEAR
1980/1981 MANAGED AT AIN SHAMS HOSPITAL**

THESIS

**SUBMITTED IN PARTIAL FULFILMENT FOR MASTER
DEGREE OF OBSTETRICS AND GYNAECOLOGY**

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Chapter I

Aim of the work

Aim of The Work

Full retrospective statistical study of the cases with heart disease and pregnancy admitted to Obstetric Department of Ain Shams University Hospital(1980-1981) as regards its aetiology, types of valvular lesions, associated diseases, their management. Also discussion the effect of the age, parity, arrhythmias, Previous heart failure on the incidence of heart failure. The methods of termination, the effect of heart lesions on mother and foetus, complications and management are discussed.

Chapter II

Introduction

HEART DISEASE WITH PREGNANCY

INTRODUCTION

Pregnancy comes as a temporary complication in the disease process of cardiac lesion, a process which, in any case is likely to shorten life. The question at issue is how to prevent as far as possible the additional burden of the pregnant state from accelerating the rate of patient's decline; and this should be the aim of the obstetrician.

Cardiac lesion in pregnant women has always presented a serious problem and it may be a very serious complication of pregnancy leading to maternal death. For this reason pregnancy with heart disease poses special problems for both the physician and obstetrician. With improvement in general medical care there has been a reduction in both the severity and number of other complications of pregnancy. This increasing knowledge and awareness of the circulatory changes in normal pregnant women better management of pregnant cardiac has become possible. This has manifested by a marked reduction in the number of pregnancies' abortion for heart diseases

Chapter III

Review of literature

Prevalence of Cardiac Diseases in Pregnancy

This varies from centre to centre and depends largely upon the degree to which minor cardiac lesions are being detected, as well as the criteria used for their classification and also upon the subjective interpretation of the minor types of symptoms and signs which appear at antenatal examination. Mac Donald and Williams (1960) estimated that heart disease with pregnancy occurs approximately 1%. Rheumatic heart disease formerly accounted for the great majority of the cases but in recent years congenital heart diseases has become more prevalent. MacRae (1948) reviewing a total attendance of 29,713 patients at Queen Charlotte's Hospital recorded the incidence as 0.8 percent (25 cases) of these, 15 had congenital lesions. Congenital heart diseases are commoner nowadays because of increased survival of such cases. A definite history of rheumatic disease was obtained in 91.2 percent.

Mathamson and Price (1962) reviewing 3500 cases in Glasgow in the years 1949 - 1953, the incidence works out at 3.2 percent of all pregnancies attending their unit. With

in the world. The disease is common in western countries, but the prevalence of rheumatic heart disease is progressively less, disease.

McKusick and Smith (1974) has stated that where as in the past between 1942 - 1971 the ratio of rheumatic to congenital heart disease was about 20 - 1 it has changed to 1-1 between 1962 - 1971.

Cardiac disease from hypertension contributes few cases of organic heart disease in pregnancy, where as other varieties such as coronary, thyroïd, syphilitic and kyphoscoliotic cardiac disease, cor-pulmonal, constrictive pericarditis, various forms of heart block and isolated myocarditis are even less common.

David N. et al. (1977) have stated that hypertensive heart disease accounts for about 1% of all cases of heart disease with pregnancy. On all kinds of rheumatic heart disease mitral stenosis is the commonest and accounts for more than three - quarters of all cases. When combined with other types of valvular lesions the figure for mitral stenosis

as even Elgher and Barry (1952) found it to be present in
all the cases.

Aortic incompetence by itself is much less common and
accounts for less than 10% of the cases. Szekely and Shazth
(1974) reported that the aortic valve lesion in chronic
rheumatic heart disease with pregnancy was m.s. in 90% of
the cases, m.R. in about 6.5%, A.R. in 2.5% and A.S. in 1 %
of the cases. Abd El-Kader F., et al., (1979) recorded
that the incidence of heart disease with pregnancy among the
obstetric cases admitted to the Ain Shams Hospital during
1973 - 1979 was 0.86%.

Physiological changes in Cardiovascular System during pregnancy

Heart rate :

1. Heart rate :

In well controlled pregnant patient series observation reveal that the heart rate increases gradually reaching a peak 1 to 2 month before delivery. It then returns towards the pre-pregnant control level at term. The maximal increase occurs at the seventh month and averages 10 beats per minute. Although greater increase in rate occurs during physical exertion (exercise) even at rest there is a continuously elevated rate throughout most of gestation (Alan, F. 1956)

2. Circulation time :

Adrian gained this point with one eye dilation technique (1937) and proved that there is a rapid circulation time during pregnancy with a 10% increase in cardiac output and a 10% increase in heart rate. The time to tongue time generally averages 12 seconds or less compared to usual normal figure of 15-17 seconds. The increased blood velocity reached a maximum during 3rd trimester of pregnancy.