



A PROSPECTIVE STUDY OF INFANTS BORN TO MOTHERS
WHO SUFFERED ANTE PARTUM HAEMORRHAGE
AFTER THE 28TH WEEK OF PREGNANCY

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The regulations of the University of Adelaide for the degree of Doctor of Medicine require:

- (1) A declaration that the thesis is the writer's own composition. This declaration may be found on page 104.
- (2) An indication of where the writer considers the thesis to advance medical knowledge or practice. This subject is contained in the Conclusion on pages 99-103.

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PART I -- INTRODUCTION

Outline and current views on research in the Perinatal Period

It is not generally appreciated that the greatest risk to survival during an individual's lifetime is encountered in the perinatal period. Thus, until very recent times, medicine has devoted most of its energies towards an understanding of man's extra-uterine existence and has given much less attention to his intra-uterine environment.

An analysis of the trends in research during the past decade indicates an awakening of interest in the neonatal period.

Recent statements by prominent medical authors confirm these views:-

Nixon (1963) in the Foreward to "The First Report of the 1958 British Perinatal Mortality Survey stated:- "Perinatal Deaths account for the loss of thousands of potential citizens, apart from the parental grief which cannot be measured. The Perinatal death rate is also an index of the number of near deaths which may have occurred and present with defects, acquired in pregnancy, at a later date.

Like an iceberg, we see only a proportion of the ill results - the deaths. But we must not forget the submerged and larger fraction, - the near deaths and the harm they cause".

Barker - Chairman of the National Committee for Research in Neurological Disorders, (U.S.A.) stated:- "Accurate and statistically valid answers to many questions about the perinatal period would be a tremendous boon to medicine.

Blighted lives, a heavy financial burden on the families of afflicted children in general, are part of the price we pay for ignorance of the perinatal period".

Britt (1957) referring to "The Early Diagnosis of Cerebral Palsy" stated:- "It is generally true in medicine that the history is often the most important factor in establishing a

diagnosis and this is especially true in paediatrics....

Since an intact brain is essential to successful competition in life its preservation is of utmost importance to the individual".

Claireaux (1959) stated:- "The connection between certain forms of intracranial damage and the future development of cerebral function seems to be well established.

It is important to discover exactly what is this pattern of such damage to foetus and newborn".

The Reasons for the present Study

"Surveys and enquiries make an intrusion into family life and they can be justified only if they are designed to answer questions which are worth answering, which have not been answered in any other way.....Spence (1954)

Miller (1964) stated:- "Rather more than 10 years ago the late Sir James Spence electrified a meeting of the neurological section of the Royal Society of Medicine - which on that evening was peacefully browsing over the problem of cerebral palsy...by saying "Neurologists hoping to make any real contribution to the aetiology or the prevention of the condition under discussion...would be better advised to occupy themselves with prospective than retrospective research, and should seek the genesis of these cerebral conditions in the obstetric or neonatal unit".

Benaron (1960) stated:- "The Best Studies are the Prospective Longevity studies which have documented histories recorded from periodic observation throughout the life of the individual. So far these have been few in number and have never covered the entire period from birth to maturity.

It is towards these developmental studies that future Research must be orientated".

Polani (1963) stated:- "In a large proportion of cases the origin of "cerebral palsy" is obscure, though to a number of people a label of "post anoxia" appears adequate in many instances.

It is particularly necessary that further study be made of these cases. Probably the approach to this through the study of "high risk" groups of mothers should be intensified.

MacKeith (1962) stated:- "Who in Britain is stopping hard to think about Ante Partum Haemorrhage?".

White (1959) stated:- "It is obvious that accidental haemorrhage is a potent cause of foetal wastage and infant morbidity, and until the problem is solved, the paediatrician's task of salvaging to the maximum extent, the "accidental" neonate remains".

Ingram (1964) stated:- "The Danger to the Foetus resulting from A.P.H. with its attendant disturbance of placental nutrition is well recognised".

Why do certain children suffer from the deleterious effects of perinatal asphyxia and others do not? There is all the difference in the world between the statement:- Asphyxia is detrimental to an infant and asphyxia may be detrimental to an infant.

This present Study is an endeavour to solve some of these above problems. It is a Prospective Study and a "high risk factor" Ante Partum Haemorrhage has been chosen.

As Barcroft wrote shortly before his death in regard to the initiation of breathing in babies:- "A life time might be spent in filling in the details".