SUMMARY AND CONCLUSION

Injuries sustained during the birth process may be avoidable, or they may be unavoidable and occur despite skilled and competent obstetric care (Behrman, 1973).

Birth trauma may arise from causes operating before or during birth. It represents the second chief cause of neonatal death during the first week of life (Sakr, 1954).

All types of injuries to the infant may result from a difficult delivery or operative methods of delivery, but even spontaneous delivery is accompanied sometimes by grave foetal injury (Myerscough, 1977).

Moulding of the skull, caput succedaneum, subcutaneous fat necrosis, radial nerve palsy and traumatic facial paralysis are examples of birth injuries that may be encountered during the process of spontaneous delivery by compression which the foetus sustains in his enforced passage through the birth canal (Cooke, 1968).

Factors predisposing the infant to birth injury include prematurity, cephalo-pelvic disproportion, over-

sized foetus, prolonged labour, abnormal presentations, precipitate labour and instrumental delivery (Behrman, 1973).

The problems of age and parity are important. The view is that, in the younger woman, the organs are better adapted to reproduction and labour is more likely to be normal. However, when birth occurs before the age of 15 years, disproportion is significantly more common, because of incomplete pelvic development. In primiparae under the age of 15 years, the average weight of infants is below normal because of a high proportion of premature infants (Myerscough, 1977). The foetal risks increase with advancing maternal age, due to high incidence of malpresentations and rigidity of the birth canal. Also foetal distress and operative delivery are more common than average (Myerscough, 1977).

Delay of the head on the perineum is often noticed in primiparae in our country due to the fact that episiotomy is rarely resorted to in domiciliary practice. The perineal stage is thus a definite risk in these cases and timely episiotomy well save many of the obstetric traumata (Shaaban, 1955). In his series, Shaaban (1955) reported that the number of stillbirths in the

first also rises after the sixth labour and this increased maternal age, and this is only one example of the hazards of high parity. Myerscough (1977) stated that as family size increases, each birth is more dangerous than a first birth because malpresentations, instrumental delivery are much more common.

Prematurity is responsible for about 40% of the total number of deaths in the neonatal period (Shaaban, 1955). The head of the premature infant, with tissues more delicate and oranial bones less ossified and less resistant to moulding, is particularly easily injured, and the stress and strains insufficient to cause intracranial damage to the mature infant may readily cause meningeal tears in the premature infant (Myerscough, 1977).

Not infrequently, cases with cephalo-pelvic disproportion are transferred to the hospital with a head deeply impacted in a contracted outlet often in a malposition or with an after coming head of a breech retained by a narrow pelvis or with prolapse of a non pulsating cord. Sometimes, even a difficult forceps operation is contemplated outside the hospital. In these cases ,

excessive moulding, prolonged compression on foetal head and traction on the retained after coming head resulted in so many hazards to the infant that can be minimized by careful and skillful prenatal management (Youssef,1954).

The delivery of a large foetus may present to the obstetric surgeon a serious problem, especially if there is any co-existing abnormalities such as slight pelvic narrowing or an unfavourable position of the foetus. The head of the foetus causes, as a rule, the most trouble, as, apart from its size, the bones are often more ossified, which naturally interferes with moulding of the head. Prolonged, difficult labour is usual with the oversized foetus. Instrumental delivery is the rule (Myerscough, 1977). Not infrequently, However, the shoulder girdle is the part of the foetus which has the greatest difficulty in passing through the birth canal. Extreme traction on the head to deliver the shoulder is most dangerous especially if it is drown laterally,away from one or the other shoulder. The difficult delivery of the shoulder may predispose to fracture of the clavicle, spinal cord injury, injury to the brachial plexus and fracture of the humerus (Myerscough, 1977).

The increase in the incidence of mental subnormality reported reflects excessive foetal stress. This potential tragedy should be prevented by liberal use of caesarean section (Babson et al., 1975).

The numerous investigations on breech delivery in recent years have demonstrated the seriousness of this type of delivery for the infant. The perinatal mortality of the infants delivered in the breech position is 10 to 25 times greater than that of those delivered by vertex.

This difference is largely due to premature birth. However, when mortality is compared, with correction for birth weight, the breech delivered infant is still at a disadvantage in regard to higher mortality rates , increased neurological damage and subnormal intellectual levels (Babson et al., 1975).

Researches showed that the most frequent single cause of death in breech delivery is intra-cranial haemorrhage due to tentorial tears; these tears are the result of sudden excessive pressure on the after coming head (Myerscough, 1977). Tank et al.(1971) noted the presence of spinal cord injuries in almost half of all

deaths following breech extraction (Tank et al.,1971).

Rupture of, or haemorrhage into , abdominal organs caused by rough handling of the trunk during breech delivery is reported by (Gresham, 1975). When the foetus is mature and especially if it is oversized, the stresses and strains of manual extraction render it liable to a variety of traumas including fracture of clavicle, femur or humerus. Forceful rotation and lateral flexion of the neck in the attempt to delivery the aftercoming head may be accompanied with brachial plexus injuries, phrenic nerve palsy and sternocleidomastoid injury (Cooke, 1968).

The major hazards of precipitate labour to the foetus are sub-dural haematoma and fracture of the skull bones. The suddeness with which the head is forced into the pelvic inlet and the rapidity of its descent through the birth canal leave no time for gradual moulding. Abrupt compression of the head in the antero-posterior diameter causes an equally abrupt broadening of the bitemporal diameter and stretching of the tentorium cerbelli with consequent rupture of the veins passing from the tentorium to the venous sinuses (Cooke, 1968).

The perinatal mortality rate associated with forceps deliveries depends on the condition of the foetus at the time the operation is undertaken, as well as the station of the head. The perinatal loss or damage is directly proportional to the height of the skull above the perineal floor (Pritchard and Mac Donald, 1976). Among forceps deliveries, the gross still birth rate was 10% (Shaaban, 1955). A large part of this outcome, however, is due to the conditions which demanded forceps application rather than the procedure itself. But forceps, application adds its own hazards and may be complicated by depressed skull fracture, linear skull fractures, intracranial haemorrhage and cephalhaematoma (Cooke, 1968) fortunately, the difficult forceps delivery has been largely replaced by caesarean section (Pritohard and Mac Donald, 1976).

Proper antenatal care and its role in the prevention of birth injuries :

Birth injuries present a conjoint problem. One part is obstetrical and involves the study of conditions that occur during birth and also go back to the period of pregnancy. The other is paediatric problem which covers the first weeks after delivery and continues into the

following weeks and months (Sakr, 1954).

The incidence of birth injuries is high particularly in rural areas. This is definitely attributed to the fact that the great majority of the cases are intrapartum emergencies after improper handling of midwives and practationers (Shaaban, 1955).

In the last four weeks of pregnancy, one of the important steps in ante-natal care is the exclusion or recognition of cephalo-palvic disproportion. It is often thought that a women who has spontancously given birth to a healthy child of good size will not have disproportion in a subsequent pregnancy, but the birth weights of successive babies tend to increase, and disproportion may arise for the first time in a third or fourth confinment. The obstetrician must not overlook this possiblity (Browne and Dixon, 1978).

Pelvic deformity is suspected by smallness of stature, an abnormal gait, or by malformation of limbs or spines, also in the case of a primigravida, by pendulous abdomen and by non engagement of the foetal head in the last weeks of pregnancy, and in the case of a multigravida, by a history of previous difficult or instrumental delivery (Myerscough, 1977).

Women who are likely to have a higher incidence of perinatal mortality or morbidity must be identified during pregnancy. This high risk group includes : all primigravidae, women aged 35 years or over, women with four or more children, women with history of obstetric complications, women who have had still birth or neonatal death and women with any complications developing in the current pregnancy (Browne and Dixon, 1978). Women in the high risk categories should be encouraged to be delivered in fully equipped and staffed obstetric departments of general hospitals, where specialist staff in all the major branches of medicine are readily available (Browne and Dixon, 1978).