SUMMARY

Residual deformities seen in obstetrical brachial plexus palsy are a great problem and should not be overlooked, as patients have been shown to suffer psychologically from their disabilities.

Prenatal care must be provided to mothers especially multi parous mothers and diabetic mothers with higher rates of injuries of severe types. Prenatal birth weight estimation near the end of pregnancy is of most importance in preventing traumatic delivery. Also breach delivery is a very great risk of brachial plexus injury and so these deliveries must be very well managed.

Assessment of injured children must be done in specialized centers, where trained physicians will be capable of picking up the bad prognosis group from all of the injured children. This needs cooperation between pediatric, orthopedic and rehabilitation physicians.

Prognosis of the OBPI depends on the severity of the lesion. Most children will recover fully during their first months of life; however, it is estimated from longitudinal studies that between 5% and 19% of them will present a degree of residual dysfunction.

The value of isolated methods of diagnosis is limited but the combination of more than one method gives the added value of all of them and omits their defects. So the surgeon must use all his tools to reach accurate diagnosis, which will help in planning of the treatment which will be most suitable for his cases.

Radiologic examination, electrophysiologic studies are useful in confirming clinical diagnosis. MRI is the best technique to study gleno-humeral dysplasia in small children, because it allows excellent visualization of the bone contours, hyaline cartilage and muscles. CT scan

used to determine the degree of glenoid version, to identify dysplasia of the glenoid and to assess the degree of subluxation of the humeral head. Other modalities, such as arthrography, arthroscopy and ultrasonography are needed for more accurate diagnosis.

Early surgical intervention if not improve the condition it help to reduce the residual deformity, according to which late reconstruction could done.

Although the shoulder is by far the most frequently affected joint in residual OBPP; elbow, forearm, wrist and hand also frequently display disabling secondary deformities.

Current treatment options for shoulder weakness associated with BPBP include; soft tissue procedures (tendon release, tendon transfers) and bony procedures (humeral osteotomies), with the goal of improving abduction and external rotation of the shoulder, so that the hand can reach the head.

Tendon transfers are recommended for toddlers and young children with minimal glenohumeral deformity. Osteotomy is recommended as a salvage procedure for the older child with severe glenohumeral deformity.

Arthroscopic release of the anterior capsule and contracted tendons for internal rotation contractures also has been reported.

Before surgery many patients are unable to perform self care activities such as grooming, feeding and washing themselves. After surgery most children can dress, wash, perform self cleaning and feed themselves better and no longer require help with these activities.