

**EVALUATION OF THE RESULTS OF TREATMENT OF  
SHOULDER ADDUCTION INTERNAL ROTATION  
IN ERB'S PALSY  
WITHIN THE EARLY EIGHT YEARS OF LIFE.**

M.D. Thesis Presented by

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EVALUATION OF THE RESULTS OF TREATMENT OF SHOULDER ABDUCTION,  
INTERNAL ROTATION IN ERB'S PALSY WITHIN THE  
EARLY 8 YEARS OF LIFE.

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#### Aim of the work:

Evaluation of the results of conservative treatment of early cases of Erb's palsy and the surgical correction of the neglected cases with residual adduction, internal rotation deformity either by L'Episcopo operation or derotation humeral osteotomy.

#### Introduction:

Erb's palsy is the commonest of all obstetrical brachial plexus injuries. It represents a traction injury of the fifth and sixth cervical roots caused by sustained traction on the head and shoulder during delivery.

This subject is of great importance in orthopaedic because of the wide divergent opinions as regards its aetiology, pathology and lines of treatment (Merger R' Judet.).

The diagnosis is usually easy both in the early and neglected cases based on the clinical and radiological findings.

Treatment must be started as early as possible in the form of a well planned programme of physiotherapy with light intermittent splintage from the first few days of life.



If the treatment is, delayed, muscle contracture takes place rapidly leading to different types of deformities involving the upper limb mainly adduction internal rotation deformity of the shoulder with subsequent limitation of abduction external rotation movements and residual disability in the functions that intail some degree of external rotation with the hand, above the head as eating and combing.

The correction of the late cases with adduction internal rotation deformity of the shoulder was tried by several surgical procedures, but the procedure of choice should fulfill the following requirements:

- 1- Correction of deformity.
- 2- Improvement of muscle power.
- 3- Improvement of range of active abduction and external rotation.

#### Items of the study:

#### **1 Anatomy of the brachial plexus**

#### **1. Brachial plexus injuries:**

- \* Mechanism of injury.
- \* Pathological changes after Erb's paralysis.
- \* Diagnosis.

#### **2 Review of different lines of treatment of Erb's palsy**





¶ Material and Methods:

- \* The results of early treatment of 40 cases presented with early Erb's palsy.
- \* 20 cases with adduction internal rotation deformity after Erb's palsy treated by L. Episcopo operation.
- \* 20 cases with adduction internal rotation deformity after Erb's palsy treated by derotation humeral osteotomy.

¶ Assessments of the results will be done according to the clinical and functional improvement.

¶ Discussion.

¶ Summary and Conclusion.

¶ References.

¶ Arabic Summary.



تقديم طرق العلاج المختلفة لشوه الكتف الناتج من  
شلل ارب في السنوات الثماني الاولى من العمر

بحث دكتوراه مقدم من

الطبيب/ محمد رجاى محمد حسن محمد  
ماجستير جراحة العظام.

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ويشمل البحث ثمانون حالة من شلل ارب مقسمة الى ثلاث مجموعات:

المجموعة الاولى تشمل اربعون حالة تم تشخيصها مبكرا بعد الولادة

وبدأ العلاج التحفظى مباشرة.

المجموعة الثانية تشمل عشرون حالة من الحالات المتأخرة وتم

علاجها بعمل نقل للأوتار حول مفصل الكتف.

المجموعة الثالثة تشمل عشرون حالة من الحالات المتأخرة وتم

علاجها بعمل نقل عظمى للعهد مع استبدال محور العهد الخارج.

ويتم تقديم نتائج جميع الحالات من حيث علاج تشوه الكتف وقوة

المفصل ومظهر المفاصل ومقدار التحسن فى النشاطات اليومية بعد العلاج.



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