Early versus Late surgical treatment for Obstetric Brachial Plexus Palsy
(Assuit University Hospitals Experience)
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Introduction
To investigate the proper age limit for surgery in OBPP

Patients and Methods
1998-2007, 150 patients
- Upper C5,6 (22%)
- Upper middle C5,6,7 (24%)
- Lower C8, T1 (2%)
- Total C5-8, T1 (52%)
Assessment using Toronto scale, Clarke and Curtis (1995)

Results
1- Reconstructive procedure
A- Neurolysis was best for restoration of wrist and fingers flexion, (85.7%), and elbow function, flexion and extension, (75%) for each.

Surgical Strategy of repair
- Ruptured roots
  - reconstruct the plexus anatomically.
- One root avulsed and C7 ruptured
- Two roots are avulsed
  - remaining 3 roots to cords or trunks
- Three roots are avulsed
  - one root to LC and the other to PC, and ICN to MC
- Four roots avulsed
  - single available root to LC via a graft, ICN to MC, and CN-C7 to PC via a graft
- Five roots avulsed
  - same as above + SAN to Mc via a graft,
  - or, two additional ICN to Mc

B- Grafting
Shoulder abduction: 60%
Shoulder external rotation: 50%

B- Elbow Function
  - Flexion 72% (n=31)
  - Extension 62.5% (n=25)

C- Wrist and finger
  - Flexion 68.8%
  - Extension 48.6%

3- Lesion distribution
A- Upper trunk (C5,6)
  - Shoulder Abd 60%
  - Shoulder External Rotation 80%
  - Elbow flexion 80%
  - Elbow Extension 60%

B- Upper Middle (C5,6,7)
  - Shoulder Abd 57.9%
  - Shoulder Ext Rot 72.7%
  - Elbow flexion 78.9%
  - Elbow ext 52.6%
  - Wrist and finger ext 47.4%

C- Total C5-8, T1)
  - Shoulder Abd 60%
  - Shoulder Ext Rot 53.5%
  - Elbow flexion 60%
  - Elbow ext 53.5%
  - Wrist and finger ext 46.7%
  - Bilat. Rt. Total 16m

Bilateral: C5-7 R
  - C8, T1 A
  - C5-G-PDUT,MT
  - SAN-SSN
  - ICN3,4,5-MC
  - 45 m FU

Conclusion
The earlier the surgery the better the final outcome, however delaying surgery to the age of 5-6 months does not seem to have a detrimental effect on the quality of functional recovery, and at the same time reduces the risks associated with prolonged anesthesia.