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**Research Article**

# Physiotherapy Treatment of Obstetrics Brachial Plexus Palsy (OBPP) Erb - Duchenne by age group

**Healthcare**

**Keywords:** Obstetric Brachial Plexus Palsy, Erb Duchenne, 30 cases, techniques Bobath and Vojta, Function, Aesthetics.

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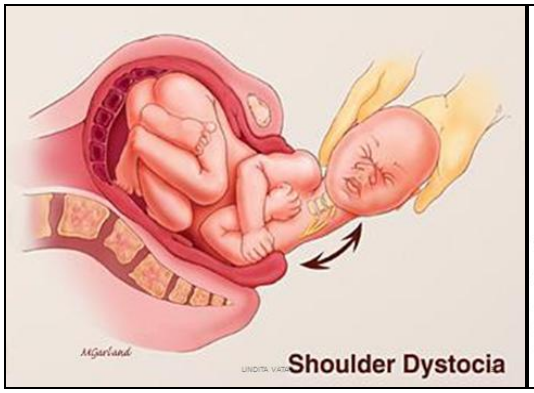
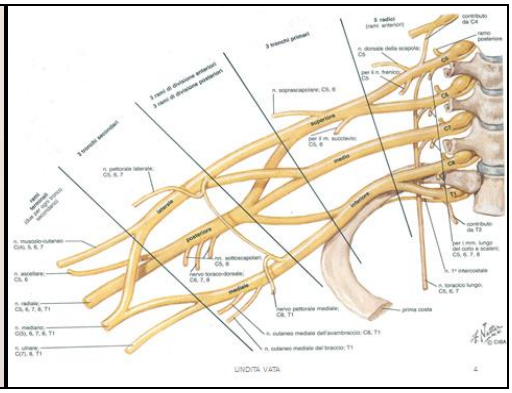
## Abstract

Presentation: Obstetric Brachial Plexus Palsy is a damage of Brachial Plexus. Aim of Study: The importance of treatment Obstetric Brachial Plexus Palsy divided by age groups , Erb - Duchenne with the techniques of Bobath and Vojta. Material and methods:In the study were 30 cases in an 8-year timeframe. Wich 15 of these children have come within 3 months of birth. These entities is applied treatment techniques according to Bobath and Vojta. Result:Of the 30 cases in the study, 15 came within 3 months of their birth. Were treated with Bobath and Vojta techniques and have achieved 100%functional result and 90% aesthetic. 15 children come after this age, 8 arrivals within the first year of birth have reached 90% function and 80% aesthetic. 7 arrivals after 18 months have received 80% function and 70% aesthetics. In measuring the results have participated doctors orthopedic and neuro-pediatre of Q.S.U. "Mother Teresa" and Trauma. Conclusion:Determinant in the results:1. The degree of damage2. Time of arrival in treatment3. Treatment by age.

## Introduction

OBPP is the flock brachial nerve damage that happens by difficult births, pulling the babies nack more than normal or fractures of clavicle. Incidence of OBPP has increased lately from 5 to 14 cases per 10'000 births. The number of incidence in the world is 1 case per 10'000 births. Obstetric brachial plexus palsy was descibed by Smellie for the first time in 1764 . In 1872 obstetrical brachial palsy Duchenne Erb classifies as damage to the upper part of the paralysis (C5 - C6). Augusto Klumpke in 1885 was the first to describe the clinical way to the bottom of onlookers. (C7 - T1).



## Aim of Study

Presentation of our experience in the pediatric department of University Hospital Center "Mother Teresa" in the treatment of obstetrical brachial palsy to patients with (OBPP) Erb - Duchenne divided by age groups.

**Diagnosis**

Diagnosis can be made by observation and imaging tools: EMG, Roentgen, MRI, NCV test.

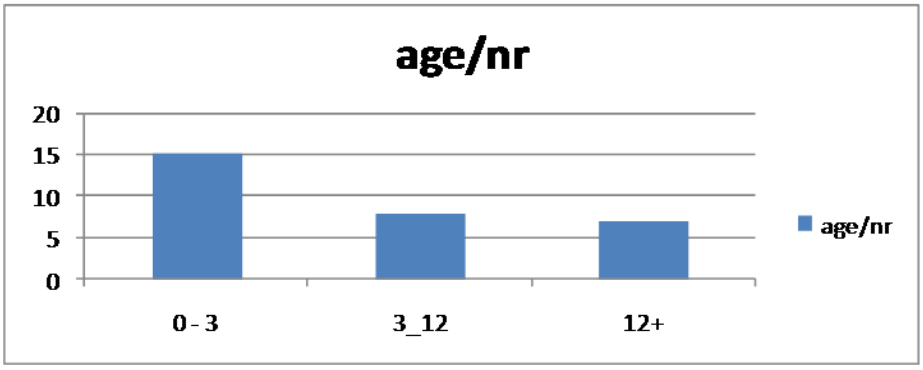
Differential diagnosis: cervical Injuries, Cervical injuries – spinal, the deployment of the upper extremity, Fracture of the clavicle, POB diagnosis is very clear and unmistakable to any other diagnosis because of its physical characteristic.

**Material and Methods**

From 2009 - 2016 we have treated over 30 cases instance Erb - Duchenne. No bilateral.
15 cases (50%) have come within the first 3 months of birth.
8 cases (27%) have come within the first year of birth.
7 cases (23%) have come after the first year of birth.

Devided by age groups:

| Age Groups | Number of children |
|---|---|
| 0 – 3 months | **15** |
| 3 – 12 months | **8** |
| + 12 months | **7** |




**Treatment**

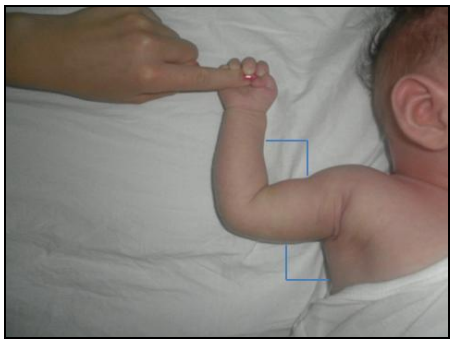
Rehabilitation of these patients is used Vojta and Bobath techniques.
This treatment technique uses simple tools that are divedid by age groups and corrective orthesis.
Important role in the rehabilitation is the arm positioning (90-90) at the age of 0-3 months.

Work is done in two directions:

1. functional
2. aesthetic

With 15 children coming 0-3 months, is given special prominence Positioning 90-90 because:
1. Positioning 90-90 enables faster regeneration of nerve;
2. Give the possibility of limb movement easier, due to a lesser gravity force;

3. Protects art. Gleno - Humeral from deployment;
4. Maintains stabilize art. Scapulo - Thoracic by internal tense shoulder muscles;
5. Enables limb movement supinacionit;
6. Keep in regular anatomical position 4 art. The limb: lock, elbow, gleno - humeral, scapulo- thoracic.



We give priority to the injured extremity in stimulating capture objects at the age of 3-12 months. Articular mobilization, extension and strengthening of the entire extremity muscle and extremity activation through the different types of games that are used for over 12 months of age. During this period, in addition to positioning the most important is the extension of the fingers, their mobilization hitting the palmar triangle. The hitting techniques stimulates the palmar flection. Keeping the palm extended stimulate the CNS.

Physiotherapy treatment at 3 – 12 months:
The main objectives at this age:
1. Implementation of the capture function
2. Stimulating the growth of limb
3. muscle strengthening
4. maintenance articular
5. Extension m.Biceps Bracho
6. Extension m. Deltoideus

During this age special attention at positioning on 4 points and dragging the feet and hands. This age group have used and corrective orthesis skapulo - thoracic and cubit.

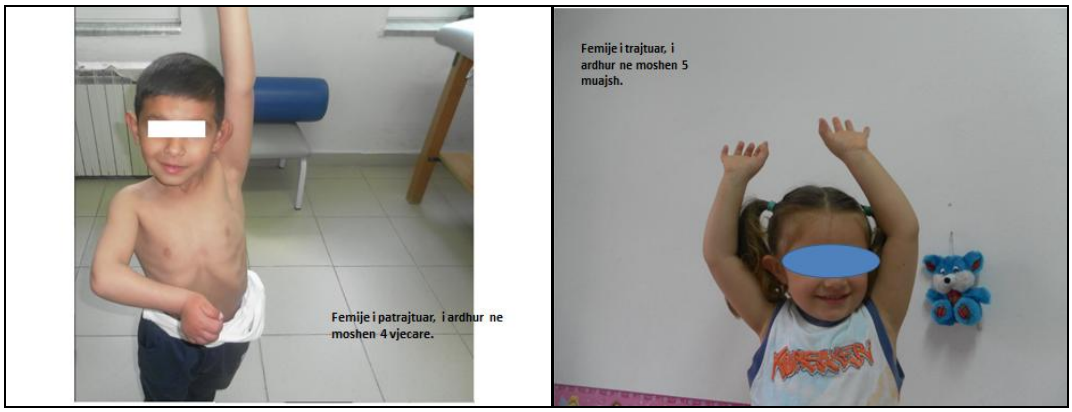
Physiotherapy treatment at patients over 12 months:
The main objectives of this age:
1. Passing objects from one hand to ather;
2. Maintenance of art. Scapulo - Thoracic and Gleno – Humeral;
3. Flexion and Extension of art. Cubitis and carpal pronation – supination;

4. Normal functionality of the limb;
5. Extension of m. Pectoralis, m. Deltoideus, m. Biceps brachii, m. Flector of the ankle;
6. Strengthening m. Triceps brachii, m. Extensor the ankle.

In this age group I have worked with 7 children with Erb – Duchenne. We have used Vojta and Bobath techniques, but special attention is paid to its management-activated limb of the patient through the run games. We have used electrotherapy (TENS), hydrotherapy (swimming) and 2 patients also parafinotherapy.

**Result**

Of the 30 cases treated, 15 have come within the first 3 months of birth. They were treated with Bobath and Vojta techniques. I used corrective orthesis. These patients have reached 100% function and 90% aesthetic. The 15 children to come after this age, 8 of them have come within the first year of birth have reached 90% function and 80% aesthetic. While 7 of arrivals after 18 months have received 80% function and 70% aesthetic.




**Conslusion**

Time of arrival is decisive in the result of treatment. Cooperation physiotherapist-doctor neonate-neuropediater-ortoprotezist-parent affects the result of treatment.

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