

Case Report

## Cerebral palsy: A clinico-social case report

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**Abstract:** Cerebral palsy (CP) is the most common motor disability in childhood. It is characterized by 'aberrant control of movement or posture appearing early in life (secondary to central nervous system lesion damage or dysfunction). We report a case of 11 years old male child suffering from spastic cerebral palsy with failure to thrive with severe anaemia and profound mental retardation. Contributory factors identified are consanguinity in family, Mother's age at pregnancy was 30 years, Perinatal asphyxia and fetal distress etc. Behaviour offamily is neglecting for seeking adequate health care and rehabilitation for the patient.

**Keywords:** Cerebral palsy, Consanguinity, Asphyxia

### INTRODUCTION

Cerebral palsy (CP) is the leading cause of childhood disability affecting function and development. The incidence of the condition has not changed in more than 4 decades, despite significant advances in the medical care of neonates. It is not a single disease but a symptom complex of a wide variety of static neuromotor impairment syndromes occurring secondary to a lesion in the developing brain. The prevalence estimates of CP ranging from 1.5 to more than 4 per 1,000 live births or children of a defined age range [1-5]. About 1 in 323 children has been identified with CP according to estimates from CDC's Autism and Developmental Disabilities Monitoring (ADDM) Network [6].

### CASE REPORT

An 11 years old male child presenting with seizures lasting for about 50-60 seconds with normal spells ranging from few days to few weeks and associated with fecal and urine incontinence since 1 year of age. He presented with inability to gain weight and perform activities of daily living.

History, narrated by the mother of the patient, dates back to the age of 2 days when the patient was admitted to a Neonatal Intensive Care Unit for neonatal seizures with hypoglycemia, hypocalcemia with

meningitis with neonatal septicemia. Weight of child on admission was 1.95kg (Birth weight). The patient was born by caesarean section at full term (38 ± 2 weeks) with indication of fetal distress and precious baby at tertiary institute in Haryana, India and was short for gestation age. The patient was discharged after 22 days from NICU. Weight on discharge was 2.15 Kg.

At around 1 year of age, the patient started developing seizures frequently lasting for 50-60 seconds with normal spells of 1-4 days along with generalized progressive tonic-clonic of body for which no treatment was sought. History of involuntary passage of stools and urine, salivation and increased tonic-clonic during seizures was present. Since then, negligence in seeking treatment for the patient has been observed. The patient continued to be only on liquid diet since then along with persistent spasticity in body.

History of impaired growth and development of child since 1 year of age was present. At the age of 10 years, treatment was initiated from an Ayurvedic doctor for seizures. Since then, improvement has been observed in the patient with decrease in frequency of seizures (normal span now ranging from few days to few months), and improvement in diet intake (started on solid food as well).

### Obstetric & Antenatal history of Mother

Mother is P2L2 with age at marriage 14 years with history of primary infertility for 16 years. Treatment for infertility was taken from unreliable sources which resulted in pregnancy. Adequate antenatal care was received but was complicated at full term with fetal distress and was delivered by caesarean section. She had subsequent pregnancy after 3 years which was uncomplicated and delivered at full term by normal vaginal delivery.

### Dietary History

Dietary history was assessed by 24 hour recall method computing to total calorie intake of approximately 1710 kcal (RDA=2190kcal/day) and protein intake of 43 g (RDA=39.9g/day). Total calorie deficit was 480 kcal/day. Protein intake was adequate.

### Developmental History

Currently, the patient could hold his neck, sit with support, could not stand/walk. He could not pay attention to sound and had monosyllable speech. He could not establish eye contact. He had no civil senses, toilet demand and gender recognition.

### Family history

History of consanguinity in family is present with mother and aunt belonging to grandmother's family. Paternal uncle and aunt has history of persistent primary infertility since marriage. Death of paternal uncle in neonatal period from unknown cause (twin delivery).

## EXAMINATION

### General Physical Examination

Patient is conscious, uncooperative and unable to respond to commands.

- Height 118 cms
- Weight 15 kgs  
(Both below 3 percentile as per IAP weight for age and height for age charts-2015 [8])
- BMI 10.79 kg/m<sup>2</sup>
- Head circumference – 43 cm
- Vitals stable

**Chest/Lungs:** Equal chest expansion, clear breath sounds.

**CVS:** S1 S2 heard, Apex beat at 5th ICS (L) MCL, no murmurs

**Abdomen:** Soft, distended, non tender/ no mass palpable.

**CNS:** No focal neurological deficit, Brisk Deep tendon reflexes, withdrawal in plantar reflex

**Musculoskeletal:** Pectus carinatum (Fig 1), Hypertonia LL>UL, persistent cortical thumb, Popliteal angle= 50-

60°, Adductor angle= 60-70°



Fig-1: Patient picture showing Pectus carinatum

### Head to toe examination:

**Appearance:** Pale face, Pinna disproportionately large, microcephaly (Fig 2)

**Eyes:** no Bitot spots, no strabismus

**Lips and dentition:** no angular cheilitis, abnormal dentition with abrasions and several carious teeth

**Nails:** no brittle nails. no koilonychia/clubbing

**Skin:** normal and healthy.  
No enlarged thyroid gland.



Fig-2: General appearance of child

### Investigations

Haemoglobin= 2.9g/dl, IQ<20.Serum Alkaline phosphatase was raised= 125 U/L (Normal= 30 U/L), Serum Protein= 6.6g/dl(normal=6.8g/dl), SGOT= 20 U/L(normal upto 40U/L), SGPT= 15 U/L(normal upto 40U/L).

### Probable Diagnosis

The 11 year old destitute child living in joint family belonging to upper middle socioeconomic scale (modified kuppuswamy scale [7] is probably suffering from spastic cerebral palsy with failure to thrive with severe anaemia and profound mental retardation with query of syndromic boy.

### Contributory Factors to the disease identified

Consanguinity in family, Mother's age at pregnancy >30 years, Perinatal asphyxia and fetal distress, neglecting behavior of family for seeking adequate health care for the patient are the immediate contributing factors. Other factors identified are no intervention by health staff/Anganwadi workers, economically fragile family and poor environmental conditions like improper light & ventilation, unclean surroundings etc.

### PROPOSED ACTION



Fig-3: Proposed Action

#### At the level of individual

Patient is totally dependent on mother. No action could be proposed at individual level.

#### At the level of family

Family to be made aware of the condition, to be told that it is non-progressive and motivated for his comprehensive diagnosis and treatment. Compliance to treatment and adequate family support to the patient is the key to success.

#### At the level of community & Health workers

Health workers should monitor growth of the patient regularly and motivate family members for compliance. Awareness in community regarding early symptoms and danger signs and need of adequate and

timely antenatal and intrapartum care should be made.

### Action taken

The patient was referred to a tertiary care centre where he was admitted after baseline assessment. The patient was transfused with packed cell volume and started on treatment for seizures and supplementation for IFA, Calcium and multivitamins. Rehabilitation centre has been contacted for his long term Day care rehabilitation and physiotherapy.

### DISCUSSION AND CONCLUSION

According to UN Enable, around 10% of the world's populations, 650 million people, live with disabilities[9]. Persons with special needs, like this case, is a highly vulnerable group of population, often neglected in national arena, especially in developing countries. Persons with disabilities are more likely to be victims of violence or rape, according to a 2004 British study, and less likely to obtain police intervention, legal protection or preventive care. This group requires special attention and focus to preserve their basic human rights as well as to improve their quality of life. The near-normal lifespan of many people with disabilities and their involvement in family and community activities provide strong rationale for addressing their long-term health and wellness. Comprehensive rehabilitation services and social support are a major component of their management which are either in scarcity or are impractically framed to actually make an impact in the lives of such children. There is a need for the programmers, planners and various stakeholders to address the issues of children with special needs, at priority, so that they may lead a secured and healthy life.

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