CASE STUDY OPEN ACCESS

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Patient A, a seven months old male, resident of Hisar presented to hospital with the complaints of delayed attainment of milestones in the past one month of life and episodes of Abnormal jerky body movements for four months of life.

At one month of age, mother noticed paucity of movement of all 4 limbs and that child is not looking and smiling at her when she talks. Child doesn't give any responsive movement to loud sounds. At 4months, mother observed jerky movements of limbs which lasts for 4-5 secs and gets relieved on its own occurring with a frequency of 10-12 episodes/day. Mother also observed tightening of limbs while dressing and undressing the child which has also increased since last 1-1.5 months. History of fisting movements present. Child doesn't hold hands together in midline, slight flexion of both Upper & Lower Limbs which increases on triggering and tone becomes normal during sleep. Vision and hearing impairment history present. History of not gaining weight.

No history of any feeding difficulty, abnormal eye deviation, cyanosis, facial deviation, loose stools, urinary retention and abdominal distension.

Antenatal history- mother conceived spontaneously and her pregnancy was confirmed by Urinary Pregnancy Test kit followed by Ultrasonography (USG). No significant medical conditions were seen in mother.

Birth History:
Full term, Normal vaginal delivery at home, Birth weight : 4.5 kg, didn't cry immediately after birth, admitted in private hospital discharged after 4 days (no documents available)

Immunization History: patient has been immunized up to 1.5 months.

Development History:
Supine: Head in midline
Prone: Lifts head slightly from the bed
Pull to sit: head in same line as body
Ventral suspension: Head holding at level of body, UL and LL flexed at hip, knee
FINE MOTOR: No dextrous reach
LANGUAGE: No Babbling
SOCIAL: Social smile absent

Anthropometry:

Parameter	Observed	Expected
Weight	5.5 Kg	8.5 Kg
Height	64 Cm	70 Cm
Head Circumference	39 Cm	44.5 Cm
Mid-Upper Arm Circumference	14	

Central Nervous System (CNS):
1) Tone - increased in all 4 limbs
2) Reflexes -

	Right.	Left
Babinski-	+	+
Ankle. -	+	+
Knee. -	+	+

3) Power- >3/5 in all 4 limbs

Course during the Stay:
Seizures controlled with Valproate @30mg/kg/day and Clonazepam @0.02mg/kg/day

Advice on Discharge:
1. Syrup Valproate (200mg/5ml) 1.5ml TDS @30mg/kg/day
2. Tab Clonazepam (0.25mg) ½ tab ODHS @0.02mg/kg/day
3. Syrup Calcium (250mg/5ml) 5ml BD
4. Vitamin Drops (400 I/ml) 1ml OD
5. Syrup B Complex 5ml OD
6. Date for MRI Brain 13/06/22
7. Date for EEG 22/06/22
8. Next CDC visit on 23/06/22
9. To come to ENT OPD on 06/07/22
10. To come for follow in OPD on Monday/Friday

Comments & Discussions:
Patient As case shows an example of Global developmental delay with microcephaly with failure to there with evolving mixed Cerebral Palsy. (Spastic Quadriplegia and Dystonia).
Cerebral palsy refers to permanent, nonprogressive and occasionally evolving, disorders of tone, movement or posture, caused by an insult to the developing brain. It is the most common chronic motor disability in childhood, affecting 2-3 infants per 1000 live births.
While perinatal asphyxia was considered the most common cause, it accounts for less than 10% of cases. Various causes are:

Genetic or Prenatal Causes
Structural malformations of nervous system
Congenital or intrauterine infections
Maternal or obstetric complications
Teratogens

Perinatal Causes
Birth asphyxia
Prematurity; low birth weight Birth
Trauma; intracranial haemorrhage
Hyperbilirubinemia; hypoglycaemia
Central nervous system (CNS) infection

Postnatal Causes
CNS infection
Hypoxia
Trauma; toxins

Cerebral palsy life expectancy is generally calculated by the severity of a child's condition. Mobility issues, intellectual disabilities, vision/hearing impairments, and other coexisting conditions can all affect cerebral palsy life spans. An individual with mild cerebral palsy will likely have a similar life expectancy as an individual who does not have the condition.

Severe cerebral palsy may have a shorter life expectancy than mild cerebral palsy patients.

Patients with severe cerebral palsy tend to have significant mobility and/or intellectual limitations. For this reason, these individuals have a 40% chance of living to 20 years old.

Management requires multidisciplinary inputs from the paediatrician, occupational therapist, physiotherapist, clinical psychologist, orthopaedic surgeon, speech therapist, ophthalmologist, ENT specialist, social worker and special educator.

Generalised spasticity is managed by physiotherapy and drugs such as diazepam, baclofen, tizanidines or dantrolene. Localized spasticity can be effectively treated with injection of botulinum A toxin.

Some patients may require tendon release or tendon lengthening. Dystonia is managed with trihexyphenidyl, botulinum or levodopa.

There are no obviously inappropriate drugs & each medication has a clinical indication consistent with evidence-based medicine.

