



PARAPARESIS IN PREGNANCY : A RARE CASE REPORT

**Dr Rekha Devi
Rachamalla**

DNB OBG, Senior Resident, Dept. of OBG Acsr Medical College & Hospital, Nellore.

**Dr Indira
Priyadarshini Ravuri***

MS OBG, assistant Professor In Dept. Of OBG, Acsr Medical College & Hospital, Nellore. *Corresponding Author

ABSTRACT

We report paraparesis in a third gravida who presented with 9 months of amenorrhoea and weakness of both upper and lower limbs and parasthesia of all extremities. Both lower limbs showed decreased power, proximal muscles were more severely affected. Nerve conduction studies revealed bilateral acute motor and sensory axonal neuropathy, a variant of Guillain Barre Syndrome. CT brain unremarkable. Patient was treated with Vitamin B12 and folic acid and IV immunoglobulins. Baby was delivered by emergency caesarean section. Active physiotherapy started from 5th post operative day and patient improved gradually.

KEYWORDS : Paraparesis, Pregnancy, Neuropathy.

INTRODUCTION:

Paraparesis is a condition associated by weakness of voluntary movements or partial loss of voluntary movements or by impaired movements involving both lower limbs. It is usually the sequelae of bilateral damage to the corticospinal tracts, could be spinal lesions leading to spinal cord compression or cerebral lesions like venous sinus thrombosis or peripheral nerve diseases, muscle diseases or hysteria. Early recognition and multidisciplinary management are recommended.

Guillain-Barré syndrome (GBS) represents a heterogeneous group of immune mediated peripheral neuropathies. A feature common to all GBS variants is a rapidly evolving polyradiculoneuropathy preceded by a triggering event, most often an infection. GBS generally manifests as a symmetric motor paralysis with or without sensory and autonomic disturbances. Delayed diagnosis is common in pregnancy or immediate post partum period because the initial non-specific symptoms may mimic changes in pregnancy. GBS should be considered in any pregnant patient complaining of muscle weakness, general malaise, tingling of the fingers, and respiratory difficulty.^(1,2)

We report this case due its rarity and high index of suspicion needed for its diagnosis.

CASE REPORT:

We present an interesting case of a pregnant lady with paraparesis evaluated systematically and came up with a rare diagnosis of AMSAN variant of GBS. A 24 years old lady third gravida , G3P2L2 presented with 9 months of amenorrhea and weakness of both upper and lower limbs preceded by numbness and paraesthesia for the past two days. Symptoms were of sudden onset and worsened two days prior to admission. There were no symptoms suggestive of cranial nerve involvement, bowel or bladder incontinence, back/radicular pain or sensory loss. There was no h/o any drug intake/preceding illness. No significant past and family history of similar complaints.

Her previous menstrual cycles were regular with period of gestation being 39 weeks. She has been married for the past 7 years, had two normal vaginal deliveries, boy ,5yrs and a girl 3yrs of age. On examination, she was thin built and malnourished with pallor ,brittle hair and glossitis. Vitals were stable, cardiovascular and respiratory system was within normal limits. On per-abdomen examination, uterus was term size, relaxed, longitudinal lie, breech presentation, and fetal heart sounds heard well.

Central nervous system examination revealed normal higher functions, bilateral eye movements were normal with reactive pupils, all cranial nerves were normal. Motor system examination

revealed decreased power of both lower limbs, power being 3/5 of both proximal and distal muscles. Both upper limbs power is 4/5. Tone of both upper and lower limbs normal. Deep tendon reflexes-areflexia. Plantar response decreased. Sensory examination revealed decreased sensations upto knee in both lower limbs and decreased upto elbow in both upper limbs.

A multidisciplinary team approach was planned involving a neurologist, anesthesiologist, sonologist, neonatologist and an obstetrician. With a tentative diagnosis of peripheral neuropathy, she was started on Vit B12 injections and folic acid supplements.

Routine blood investigations, serum electrolytes ,peripheral smear normal. Obstetric scan showed a single live fetus of 36 weeks duration, approximate weight being 2.4 kg, liquor adequate, placenta fundal with no doppler changes. As the patient went into spontaneous labour , she was taken up for an emergency caesarean section under spinal anesthesia. A live male baby ,2.6kg delivered. No intraoperative or postoperative complications.

CT BRAIN reported normal study. As advised by neurophysician, Nerve conduction studies revealed AMSAN (Acute motor and sensory axonal neuropathy) VARIANT OF AIDP. (lower limbs > upper limbs) Electrophysiological studies revealed decreased amplitude of compound action potentials in median and common peroneal nerves with decreased conduction velocity and abnormal F waves.

The management of GBS in pregnancy is similar to that in the non-pregnant population and includes intravenous immunoglobulins (IVIg). Total dose of immunoglobulins for this patient is 80g given 15g/day slowly over 2 hrs for 5 days. Active physiotherapy was started by the fifth postoperative period. There was gradual improvement by 2 weeks postpartum. She started to take small steps to the toilet all by herself.

DISCUSSION:

GBS can occur in any trimester of pregnancy and post-partum period but specifically in third trimester and first 2 weeks postpartum. About two thirds of patients have an infection within the previous 4-6 weeks, most commonly a flu-like illness or gastroenteritis. Implicated infectious agents include Mycoplasma pneumoniae, Campylobacter jejuni , Cytomegalovirus, and Epstein Bar virus⁽¹⁾ The preceding infection may cause an autoimmune response against the various components of the peripheral nerve myelin and sometimes the axon. GBS classically presents with pain, numbness, paresthesia, or weakness of the limbs and this can be mistaken for a psychological complaint, leading to delay in diagnosis and treatment.⁽²⁾

GBS is known to worsen in post partum period due to an increase in delayed type of hypersensitivity. Up to 20% of patients are disabled

after 1 year and a maternal mortality of 7% has been quoted (non-pregnant GBS has mortality <5%).⁽³⁾ All neuropathies seen during pregnancy should be followed up as some may persist.

Bahadur, *et al.* reported a 25-year-old, gravida 3, para 2, woman at 21 weeks of pregnancy with successful maternal and fetal outcome.⁽⁴⁾ Goyal, *et al.* have described the management of a primigravida presenting at 26 weeks of gestation with plasmapheresis.⁽⁵⁾ Vijayaraghavan, *et al.* have also described its management at 16 weeks of pregnancy.⁽²⁾

Patil, *et al.* reported a similar case presented with paraparesis in 36 weeks of gestation and have been managed in terms of compression neuropathy whose condition improved after delivery with physiotherapy.⁽⁶⁾

In conclusion, a high index of suspicion for early diagnosis and prompt intensive multidisciplinary supportive care in a GBS-complicated pregnancy improves the prognosis for both mother and fetus.

REFERENCES

1. Hughes RA, Cornblath DR. Guillain-Barre's syndrome. *Lancet*. 2005;366:1653-66.
2. Vijayaraghavan J, Vasudevan D, Sadique N, Rajeswari KS, Pondurangi M, Jayshree A. A rare case of Guillain-Barre' syndrome with pregnancy. *J Indian Med Assoc*. 2006;104:269-70.
3. Furara S, Maw M, Khan F, Powell K. Weakness in pregnancy-expect the unexpected. *Obstetric Medicine*. 2008;1:99-101.
4. Bahadur A, Gupta N, Deka D, Mittal S. Successful maternal and fetal outcome of Guillain-Barré syndrome complicating pregnancy. *Indian J Med Sci*. 2009;63:517-8.
5. Goyal V, Misra BK, Singh S, Prasad K, Behari M. Acute inflammatory demyelinating polyneuropathy in patients with pregnancy. *Neurol India*. 2004;52:283-4.
6. Patil G L, Khan A N, Shridevi A S, Krishnamurthy L, Prashanth S, Prasad B S, Kishan B, Megha. Paraparesis in Pregnancy: A rare Presentation. *J Pub Health Med Res*. 2014;2(1):44-5.