

Spinal Epidural Abscess with Pregnancy Leading to Paraplegia

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Introduction

Low backache is a common feature associated with full-term pregnancy but sudden onset sharp pain compelling the patient to bed rest is not a frequent complaint. If the back pain is persistent or causes neurological problems, other pathological factors should be looked for. MRI is the safe procedure which can be performed in supine position in a pregnant lady without the fear of radiation.

We report a case of an undiagnosed spinal epidural abscess (SEA) in a 34-week pregnant lady leading to catastrophic paraplegia.

Case Report

Twenty-nine-year-old sixth gravid presented with bleeding per vaginum following amenorrhea of 3 months on 2nd April 2010. She had five abortions of the duration 2 to 2

1/2 months gestation and had a HSG report which showed bicornuate uterus. Patient was admitted on the same day and was put on bed rest, progesterone support, folic acid, sedatives & tranexamic acid, USG done after 2 weeks shows intrauterine fetus of average 15 weeks 4 days.

At 23 weeks of gestation, patient developed an abscess in left gluteal region which was diagnosed as necrotizing fasciitis and debridement was done followed by daily dressing for 2 months and patient was cured. At gestational age of 34 weeks, she had backache initially confined to small area later on radiated to both lower limbs, patient had urinary retention, constipation and then soon she developed sensory—motor para paresis along with bladder bowel involvement.

Emergency cesarean section was done on 24–08–10 and she delivered a pre-term baby of 34 weeks of gestation which required neonatal intensive care unit.

MRI revealed an epidural mass extending from T 11–L 1 vertebrae compressing upon the spinal cord at the corresponding site. The diagnoses made were either ‘syncytial meningioma’ or ‘hemangioma’ but on the basis of previous gluteal abscesses the clinical diagnosis of ‘chronic epidural abscess’ could not be ruled out. Exploration of the extradural mass was planned under general anesthesia on 02.09.10. i.e., 10th postoperative day. Epidural space was reached through T12 laminectomy in prone position. A soft bulge was noticed. On incising it a thick odorless yellowish pus flowed out. All the pus was sucked out, wound washed with normal saline and closed. Anesthesia was reversed and extubated in supine position Patient was obeying all the voluntary commands other than moving her lower limbs.

Pus was sent for culture and sensitivity which turned out to be *Staphylococcus aureus* positive sensitive to piperacillin—tazobactam combination.

One month later patient recovered some patchy pinprick and joint sensations in lower limbs but there was no improvement in motor power, urinary bladder and anal sphincter control. She was still in hospital for further observation and physiotherapy. The patient is still in our follow up and is an ardent complier. Immediately after surgery, she had urinary and fecal incontinence and inability to walk. During 3 months of medical treatment and physiotherapy following surgery, she developed tingling sensations in both lower limbs which was definitely a sign of improvement as the patient previously had paraesthesia of lower limbs. Two months later, she began to pass stools voluntarily and 3 months further, she started walking on her own. Urinary catheter was removed after 8 months of surgery. After extensive physiotherapy, she started to walk properly in 2013. As of now, she is having discomfort in

squatting. Patient has no problem in passing urine and stools or in routine ambulation.

MRI showed long epidural intraspinal lesion from lower border of D11 to lower border of L1 level. Tumor was retro medullary pushing the spinal cord anteriorly.

Discussion

SEA though rare but remains a challenging problem that often eludes diagnosis and receives inadequate treatment. Bacteria reach the epidural space through either blood or local extension of infection but vice versa infection arising from the SEA can also result in infectious complications that may be systemic (endocarditis) or local e.g., psoas abscess [1]. In our case, there was possibility of local extension of gluteal abscess. Most common cause is *Staphylococcus aureus* [2] but *Streptococcus miller*, group B *Streptococcus*, *Mycobacterium tuberculi* are also causative factors. Fever and leucocytosis are often absent in chronic patients as it was in our case.

The more clinically significant effects of the epidural abscess may be from involvement of the vascular supply to the spinal cord and subsequent infarction rather than direct compression and localized back pain is often the first symptom of SEA and that explains the sudden aggravation of neurological symptoms in our case. Pregnancy itself being a hyper-coagulable state may be contributory in the impairment of vascular supply.

To conclude, early diagnosis of epidural abscess with the help of MRI is vital before it leads to catastrophic complications.

Compliance with Ethical Requirements and Conflict of interest I declare that the article is original, neither the article nor the part of it is under consideration for publication anywhere else and has not been previously published anywhere. I declare all vested interests. I have meticulously followed the instructions. The article, if published, shall be the property of the journal and I, surrender all rights to the editor. I agree to provide the latest follow up of cases prior to publication of the case report. There is no conflict of interest statement.

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