



Case of the Month

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"Atraumatic back pain with paraplegia- An unusual case of spinal abscess"

A 67-year-old female presented to the Emergency Department with a two-week history of progressively worsening bilateral lower limb weakness and loss of bladder control. There was no reported history of trauma. The patient however did report increasing lower back pain with on and off fever and night sweats with some loss of appetite.

She also has some co-morbidities; suffering from hypertension, diabetes and was on dialysis for chronic renal failure stage 4.

FINDINGS

History and Physical Examination

Initial assessment of the patient showed a pulse of 110 and a temperature of 38.2 C. Neurological examination showed weakness of 3/5 in both lower limbs and a sensory level of L3/L4. The reflexes were equivocal with an intact anal tone and sensations. Back examination was unremarkable except for percussion tenderness along the lumbar spine.

Blood and Radiology results

Initial Lab investigations:

- WCC- 19,000
- Neutrophils – 17,000
- CRP – 263
- Potassium -5.9
- Deranged renal functions

MANAGEMENT

This led to a conundrum of varied diagnoses with an unclear picture of the probable cause of the raised inflammatory markers. Extensive discussion was held with both Internal medicine and the spinal surgeons and eventually an initial diagnosis of sepsis of unknown etiology was made and the patient was started on intravenous antibiotics and a full septic screen was sent.



Subsequently an MRI was done due to the persistent neurological deficit and back pain and the patient was found to have a 4x5cm Para spinal abscess compressing the central cord. The patient eventually required drainage by the spinal surgeon intra-operatively which was followed by a full recovery.

Spinal Cord Abscess

Spinal cord abscess is the collection of pus in or around the spinal cord. An abscess of the spinal cord itself is very rare and usually occurs as a complication of an epidural abscess. The pus collection causes pressure on the spinal cord.

The infection is usually due to bacteria. Often it is caused by a staphylococcus infection that spreads through the spine. It may be caused by TB in some areas of the world, but this is not as common today as it was in the past. In rare cases, the infection may be due to a fungus. The following increase the risk of a spinal cord abscess:

- Back injuries or trauma, including minor ones
- Boils on the skin, especially on the back or scalp
- Complication of LP
- Spread of any infection through the bloodstream from another part of the body or Injecting drugs

•The infection often begins in the bone and may cause an epidural abscess to form. This abscess gets larger and presses on the spinal cord. The infection can subsequently spread to the cord itself.

A spinal cord abscess is rare. When it does occur, it can be life threatening with considerable morbidity.

CONCLUSION

This was an unusual presentation of a spinal infection and, from an Emergency department perspective, it is imperative to consider various differential diagnoses. This particular patient was found to have a spinal abscess which is a fairly rare presentation and timely intervention helped the patient to make a complete recovery.

REFERENCES

1. *Spinal Cord Abscess- MedLine Plus (<https://medlineplus.gov/ency/article/001405.htm>)*
2. *A case of panspinal epidural abscess that presented with meningeal irritation. Acute Med Surg. 2017 Jul 6;4(3):363-366*
3. *A Protocol-Based Approach to Spinal Epidural Abscess Imaging Improves Performance and Facilitates Early Diagnosis. J Am Coll Radiol. 2017 Nov 1. pii: S1546-1440(17)31276-0*