

## Petit's Triangle Approach in an Extensive Spinal Epidural Abscess: The Forgotten Surgical Landmark

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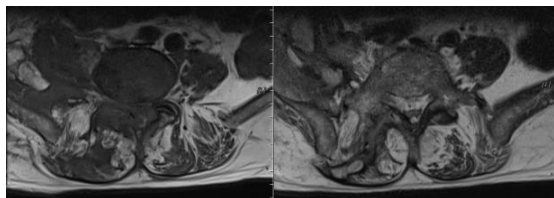
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### INTRODUCTION:

Inferior Lumbar Triangle, which also known as Petit's Triangle, is an anatomical landmark described as margins composed of the iliac crest inferiorly and the margins of two muscles – latissimus dorsi (posteriorly) and external abdominal oblique (anteriorly). The floor of the inferior lumbar triangle is the internal abdominal oblique muscle. The use of this anatomical landmarks in surgical approach, especially in Spinal Abscess Drainage had been less commonly used in recent years.

### REPORT:

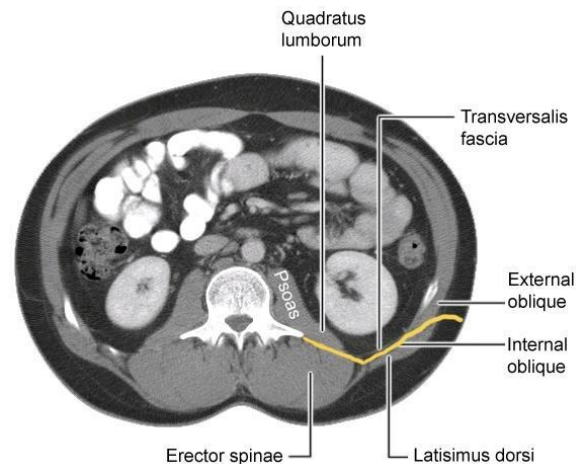
This is a case of a 72 years old gentleman with Type 2 Diabetes Mellitus who had Chronic Spinal Epidural Abscess. Patient presented with chronic low back pain for 8 months with patchy motor & sensory deficit over the right lower limb. Contrasted MRI showed large spinal epidural abscess from L2 to S2 level with extension to right iliopsoas & right posterior paraspinal muscle.



**Figure 1: MRI showed extensive epidural abscess with extension to right psoas .**

Patient underwent surgical decompression via L5 Laminectomy, and intra-operatively we noticed extensive pus collection from epidural space through neuroforamen, and proceeded with surgical drainage via Petit's Triangle approach. Abscess communicating from psoas to neuroforamen, and a total of 700cc was drained from Petit's Triangle. A high negative pressure drain (Redivac) was inserted through Petit's Triangle. Intraoperative cultures yielded *Staphylococcus argenteus*. Patient underwent a

long term IV antibiotic & clinically had shown improvement in neurological recovery.



**Figure 2: Access toward Psoas from Petit's Triangle.**

### CONCLUSION:

Surgical decompression through Laminectomy allows direct decompression at the affected vertebrae level. However in extensive epidural abscess, decompression alone may be limited & insufficient to drain the abscess, especially from psoas & neuroforamen. Furthermore, access to psoas from the posterior spinal midline are impossible without sacrificing extensive mechanical structures of vertebrae. Petit's Triangle approach allows drainage from psoas.

### REFERENCES:

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2. E. Reishaus et al., Spinal Epidural Abscess: a Meta-Analysis of 915 Patients. *Neurosurgical Review*, 2000.