Does Surgical Intervention Help with Neurological Recovery in a Lumbar Spinal Gun Shot Wound? A Case Report and Literature Review

4:00-4:15 pm

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Abstract	Introduction The third leading cause of spinal injuries are gunshot wounds to the spine accounting for 15.2% of all spinal cord injuries. Treatments for gunshot wound spinal cord injuries (GSWSCI) remains variable with indications for surgery being controversial. There is no clear evidence or guidelines that can help spine surgeons decide and direct surgical interventions. With the paucity of available literature, we report an interesting case of gun shot injury to the lumbar spine at L1 - L2 and discuss the presentation, outcome and evaluate relevant literature. Case Presentation A 27-year-old incarcerated male patient presented with a conus cauda equina asymmetrical injury involving the lower extremities, and required initial medical stabilization in the intensive care unit (ICU) and subsequently underwent delayed surgical treatment with a decompression and fragment resection at L1 - L2. The patient improved neurologically to an American Spinal Injury Association (ASIA) Classification D and eventually regained nearly all lower extremity neurological function. Final Diagnosis Despite considerable evidence favoring conservative management of GSWSCI, and the absence of guidelines or recommendations on surgical interventions, our case report demonstrates that surgical intervention in appropriately selected patients can yield good recovery of neurological function and quality of life improvement. Outcome The key remains careful patient selection, appropriate location of the retained fragment, and extent of neurological injury that occurred, we feel surgical decompression and fragment removal along with debridement can result in good neurological recovery and long term outcomes.
Learning Objectives	1. identify situations that are beneficial for surgical intervention as it pertains to gunshot wound spinal cord injuries. 2. identify the need for further investigation into gunshot wound spinal cord injuries.
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