Case Report

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Coccygodynia after Caudal Epidural Steroid Injection: A Case Report

Rachna Varma[1], Gauri Varma[2], Sudheer Dara[3] Minal Chandra[4]

Author Affiliation: [1,3,4]Consultant, [2]Intern, Department of Anesthesia, Epione Centre of Pain Relief and Beyond, Varma Union Hospital, Indore, Madhya Pradesh 452002, India.

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Abstract

Caudal epidural is a commonly used approach for epidural for different intervention. It is used commonly to treat painful coccyx pain.We report an unusual complication of coccygeal pain after caudal epidural steroid injection given for treatment of L5-S1 Prolapsed disc causing right S1 root pain.

Keywords: Caudal, Coccyx, Epidural space, Steroids, Prolapsed disc, Root pain.

Introduction

The first documented epidural medication injection, which was performed using the caudal approach was performed in 1901, when cocaine was injected to treat lumbago and sciatica (presumably pain referred from lumbar nerve roots).[1&2] According to reports, epidurals from the 1920s–1940s involved using high volumes of normal saline and local anaesthetics.[3] Injection of corticosteroids into the epidural space for the management of lumbar radicular pain was first recorded in 1952.

Case report

A 34 years male presented with complains of low back pain with radiation to right lower limb up to knee jointand tingling for one year.[4] It was a continuous burning pain which increased on bending forwards and Sitting. His visual analogue scale was 6/10. On examination his straight leg raising test right side was positive at 40° right. Faberstest was positive on the right side. On palpation tenderness was present onaxial midline lumbar spine and right Posterior Superior iliac spine.[5] There was no motor, sensory deficit or bladder bowel deficit. He was advised MRI lumbar spine which showed a moderately large posterocentral to right paracentral disc protrusion indenting the right S1 nerve root. He was counselled for surgical and non surgical interventions. He was taken for a L5, S1 right transforaminal nerve block and caudal epidural steroid injection5. He was taken to the operation theatre with intravenous catheter 18 G and monitors in place a single shot of intravenous antibiotic administered patient was put in prone position. Aseptic painting and draping was done. A right L5 and S1 transforaminal nerve block and caudal epidural injection of 0.25% bupivicaine and steroid was done under local anaesthetic infiltration and fluoroscopy guidance6. Immediately after the procedure patient reported a decrease in pain. He was observed in recovery room for two hours and was discharged with analgesics and anti neuropathics. He came for follow up after 7 days with complains of pain at site of injection. On examination there was mild tenderness on coccygeal area but no other signs of inflammation. He was advised anti inflammatory analgesics for seven days. The patient came back after seven days with severe pain at site of injection

Corresponding Author: Rachna Varma, Consultant, Department of Anesthesia, Epione Centre of Pain Relief and Beyond, Varma Union Hospital, Indore, Madhya Pradesh 452002, India.

E-mail: drrvarma@ymail.com

unable to sit but no fever or neurological signs or symptoms. His original back pain and radicular pain were negligible. On General examination patient was in severe agony but no signs of systemic illness and was afebrile. His pulse rate and blood pressure were normal. On local examination there was severe tenderness in coccygeal area. His VAS was 9/10. He was admitted and a complete blood count, C reactive protein and ESR donewas negative for any infection. A MRI with contrast of lumbosacralcoccygealregion was done which showededematous inflammatory changes in proximalcoccygeal segments. Local anaesthetic and triamcinolone 40 mg was infiltratedat the site of tenderness and fluoroscopy guidance. He reported decrease in pain scores immediately and was observed for 24 hours He was put on analgesics, anti inflammatory, advisesitz bath and prophylactic antibiotics for a week. Patient was discharged after 24 hours 7. Patient was comfortable and followed up after 7 days where he reported decreased pain with VAS of 2/10. He was then followed up after a month where he was pain free.

Discussion

Epidural steroid injection is used commonly to diagnose as well as treat various conditions. Epidural space is a potential pain generator in many conditions mainly disc disease causing inflammation of nerve roots.[8] This has lead to the use of epidural steroid injection and decrease in pain over a prolonged period of time and a positive therapeutic response in patients with radiculopathy and sciatica.[9] Chronic inflammation of nerve roots results in wallerian degeneration and fibrosis of neural tissues. The analgesic effects of corticosteroids are most likely because of inhibition of inflammation and PLA2, reduction of capillary permeability and also because it inhibits neural transmissions in nociceptors C fibres.

Caudal epidural steroid injection is commonly done to alleviate pain in acute pain like post-operative pain relief or chronic benign pain like spondylosis, radiculopathy and regional pain, coccygodynia, cancer pain. Caudal epidural approach is also used epidural injection, spinal-cord stimulation, epiduroscopy.[10] This is also used for drug Administration in patients on anticoagulation drugs or with coagulopathy. There are various advantages over lumbar epidural injection as it is technically less demanding and chances of Dural puncture is minimal.[11] There are various known but infrequently occurring complications like neurological, infection, bleeding, urinary retention, ocular complications or drug related complications. Coccygodynia or coccygeal pain is a pain in vicinity of tail bone. Most often it's caused by trauma to coccyx other causes include infection, congenital anomaly, tumours etc. it's Treatment includes conservative methods using physiotherapy, support with cushion (foam doughnut), pharmacological using analgesics and anti inflammatory drugs and interventions which includes massage, local infiltration of local anaesthetic and steroid, caudal epidural, ganglionimpar block and RF ablation (Nathan ST et al 2010). In resistant cases surgical interventions are done.[12]

Conclusion

Caudal epidural is a technically an easy procedure but should always be done with strict asepsis. Chances of any complications are very less but should be watched for and appropriate measures should be taken to recognise and corrective measures taken.

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