



Successful treatment of failed back surgery syndrome with an ultrasound-guided sacroiliac joint block: a report of two cases

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ABSTRACT

The incidence of low back pain is steadily on a rise. Although pain management has rapidly emerged as a specialty during the recent few decades, many patients are still subjected to surgical treatment by the neurosurgeons. The success rate with surgery remains highly variable, and many patients continue to suffer from persistent pain, and this condition is termed as 'failed back surgery syndrome'. The current case report of two cases highlights the role of sacroiliac joint dysfunction in 'failed back surgery syndrome' and outlines the ultrasound guided intervention of these joints with successful outcome. It stresses the need to explore all possible varied causes of the persistent pain and not to focus one's concentration only at the spinal column.

Key words: Failed back surgery syndrome; Pain; Low back pain; Surgery, Spinal

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INTRODUCTION

Severe persistent, chronic, disabling pain following spinal surgery is often referred to as "failed back surgery syndrome" (FBSS).¹⁻² Causes of FBSS are multifactorial, generally involving recurrent or persistent disc herniation, epidural scarring, lumbosacral adhesive arachnoiditis and vertebral instability. Due to the complex nature of this condition, FBSS can be difficult to treat. The sacroiliac joint (SIJ) has recently gained increased attention as a source of persistent or new pain following back surgeries.³ Intra-articular injections of local anesthetic drugs and / or steroids are considered the gold standard for diagnosis and treatment of SIJ pain, which are currently performed safely and precisely using an ultrasound-guided technique.⁴ Two patients who underwent successful treatment with an ultrasound-guided SIJ block for FBSS are presented here.

CASE REPORT 1

Case 1 involved a 67-year-old man who presented with back pain and numbness in the whole right leg four years ago. He underwent laminectomy at L3, L4 and L5 levels under the diagnosis of lumbar spinal canal stenosis at these levels. The numbness in his right leg was relieved entirely by this surgery. However, his back pain persisted and exaggerated three years back. Although duloxetine (40 mg/day per oral), tramadol (150 mg/day per oral) and paracetamol (1300 mg/day per oral) were prescribed for this symptom, pain was still scored as 50 mm on the visual analog scale (VAS). No spinal canal stenosis or compression of the nerve root was seen on magnetic resonance imaging (MRI) (Figure 1). In terms of physical findings, one-finger test of the left posterior superior iliac spine (PSIS) yielded a positive result, suggesting the possibility of SIJ failure. An ultrasound-guided SIJ block with

sacroiliac joint block for failed back surgery syndrome

10 ml of 0.5% lidocaine provided the patient with gradually decreasing pain bringing his VAS from 50 to 33 mm after seven days. This block was subsequently performed regularly every two weeks, resulting in a VAS score for pain at rest of about 20 mm.

CASE REPORT 2

In the second case, a 55-year-old man had presented with a chief complaint of back pain resulting from disc herniation three years ago, and subsequently underwent lumbar discectomy at L4/5 level. A year later, his back pain recurred and made it difficult for him to sit down. No recurrence of the herniation was evident on lumbar MRI (Figure 2). He underwent epidural block, and was prescribed duloxetine (20 mg/day, per oral), pregabalin (75 mg/day, per oral), tramadol (150 mg/day, per oral), and paracetamol (1300 mg/day, per oral). However, VAS score for pain at rest remained at about 40 mm. As this patient also had evident positive one-finger test of the left PSIS, an ultrasound-guided SIJ block with 10 ml of 0.5% lidocaine was performed for diagnostic and therapeutic purposes. His back pain gradually decreased and VAS score for pain at rest improved to 15 mm after seven days. Thereafter, good pain control (< 10 mm) was obtained with SIJ block regularly performed every four weeks.

DISCUSSION

To the best of our knowledge, this represents the first report of FBSS successfully treated with an ultrasound-guided SIJ block. FBSS is an imprecise term used to categorize a heterogeneous group of

causes to residual symptoms after surgical treatment on the back. FBSS occurs in 10-30% of cases after spine surgery.⁵⁻⁶ The causes are diverse and SIJ failure is one of such potential contributors.⁷⁻⁸ Although some studies have examined the pain arising from SIJ failure, the detailed mechanisms have remained unclear.⁹⁻¹⁰ One possible cause of SIJ failure in FBSS is the misdiagnosis of it before surgery. In addition to diseases of the lumbar spine such as lumbar spinal canal stenosis and disc herniation, back pain and leg pain can originate from the sacroiliac joint.¹¹ Another possible cause is an increased mechanical load transfer onto the SIJ after surgery.¹² Recent ultrasound-guided procedures improve the safety and efficacy of SIJ block by direct visualization of various bone surfaces. The clinical success rate was 77-100 % in the ultrasound-guided SIJ block compared with 22% in the blindly performed block.¹³⁻¹⁴

CONCLUSION

In conclusion, we have described the cases of FBSS and apparent SIJ failure in two patients, who were successfully treated using ultrasound-guided SIJ block. The advantages of using this technique are enhancing the safety and efficacy of SIJ block.

Conflict of interest: Nil declared by the authors

Author contribution: All of the authors took part in conduct of the procedures, manuscript preparation, literature search and editing.

Consent: Written informed consent was obtained from the patient for publication of this case report and any accompanying images. A copy of the written consent is available for review with the Editor-in-Chief of this journal.

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Farewell



Ashish Kulshrestha



Richa Saroa

Editorial Board bids farewell to our assistant editors, Ashish Kulshrestha, Consultant Anesthesia & Intensive Care at Vardan Multispecialty Hospital, Ghaziabad (India), and Richa Saroa, Assistant Professor, Department of Anesthesiology & Critical Care at Government Medical College and Hospital, Chandigarh (India). It has always been a matter of great pleasure for us to have both of the young scholars as assistant editors in our team, and we feel highly obliged and indebted to both of them for their selfless hard work for improving the standard and quality of the journal. Even now that they are out of the board, our association will always remain alive and fresh

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