

Transversus Abdominis Plane (TAP) Steroid Block for Chronic Abdominal Pain Caused by Chronic Postoperative Pain

Tasrif Hamdi^{1*}

¹ Department of Anesthesiology and Intensive Care, Faculty of Medicine, University of Sumatera Utara / Haji Adam Malik General Hospital, Medan, Indonesia

*Corresponding Author: Tasrif Hamdi, E-mail: tasrif.hamdi@usu.ac.id 

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ABSTRACT

Introduction: Various factors including surgical, psychological, amount of acute pain relief have been proposed as risk factors for developing CPSP. Different treatment modalities like nerve and plane blocks, psychiatric counselling have been described to counter this pain.

Case: The patient was a 30-year-old female with complaints of severe pain in the right lower quadrant of the abdomen and found a surgical scar with hyperalgesia and a history of open appendectomy surgery, two times section caesarean section surgery. The patient experienced pain after section caesarean section surgery 6 months ago. Because the pain was also felt in the right hypochondrium, the patient was unable to move his body, unable to sit and stand. The patient was diagnosed as a case of chronic post surgical pain syndrome (CPSP). We performed transversus abdominis plane block (TAP) with ultrasound guidance and lidocaine 15 ml combined with 40mg methylprednisolone. VAS scores showed significant improvement from 8/10 and 2/10 during the 10-day follow-up. We conclude that ultrasound-guided TAP block can be a treatment option for CPSP cases.

Conclusion: Chronic post surgical pain (CPSP) is a definite clinical entity after laparotomy. We report a successful management of such a case with ultrasound guided transversus abdominis plane block. The patient had very significant pain relief after procedure follow up continue until today without any side effects.

Chronic post surgical pain (CPSP), Transversus abdominis plane block (TAP), Chronic abdominal pain, Chronic postoperative pain

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INTRODUCTION

Chronic post surgical pain syndrome (CPSP) is defined based on 4 criteria, namely pain arising after a surgical procedure, pain lasting at least 2 months, other causes of the pain should be excluded, such as recurrence of malignancy or infection, the possibility that the pain is continuing from a pre-existing problem should be explored and exclusion attempted [1,2].

Various factors including surgical, psychological, amount of acute pain relief have been proposed as risk factors for developing CPSP. Different treatment modalities like nerve and plane blocks, psychiatric counselling have been described to counter this pain. We describe a case of successful management of a post appendectomy CPSP with Transversus abdominis plane (TAP) block steroids.

Cases

A 30-year-old female came to our hospital complaining of pain over on the right abdominal at lower quadrant for six months duration. Which was insidious in onset, progressive in nature and present throughout the day.

This was a sharp aching pain not relieved with routine analgesics even with psychiatric consult. There were no associated symptoms such as abdominal distension, vomiting, constipation, fever or trauma. There was no similar illness in the past. She underwent an appendectomy, three times caesarian section. The third caesarian section was six months ago under subarachnoid block and pain was still there for six months. A thorough clinical examination was normal. Examination of the surgical scar showed hyperalgesia, and pain was over on the right abdominal at lower quadrant. Pain was describing like hot, sharp, electric shock like, localized, coming every day and aggravated with activity or moving. These symptoms show neuropathic condition. The patient's pain was assessed by visual assessment scoring system and was noted to be 8-9/10 when activity, and 6-7/10 when rest. Because of pain, she was difficult to move her body; couldn't sit, and standing. We administered TAP block on the right side with depositing lidocaine 15 ml mixed with 40 mg methylprednisolone. After 15 mins of drug administration the patient was completely symptom free and was discharged. The patient was followed up for the next ten days months and the visual analogue score was analyzed and it was 2-3/10. There were no complications.

DISCUSSION

Postoperative complications following laparotomy are common. Our patient was a case of interval laparotomy (appendectomy and series of caesarian section) with neither infection nor intercurrent illness. In our case, we had all the four criteria of CPSP fulfilled [1,2].

Numerous primary studies and secondary reviews have reported on CPSP prevalence. Estimates from epidemiological studies vary widely but overall, between 10 and 30% of surgical patients will report some degree of persistent pain at one year postoperatively [3]. There are some risk factor for CPSP, the risks factor are demographic factor, the presence of preoperative pain, age, psychological factors, intraoperative nerve handling genetic, surgical technique/approach, acute postoperative pain, genetic predisposition, type of anaesthesia, and postoperative management [3,4]. The transversus abdominis plane (TAP) block is an abdominal wall block that provides somatic coverage potentially from T6 to L1 but most typically from T10-L1 [5]. Transversus abdominis plane (TAP) block involving the nerves of the anterior abdominal wall has been developed for post-operative pain control after gynaecologic and abdominal surgery [2,5]. The main purpose of the injection is to attain a high local concentration of the steroid at the operated site. We used the depot preparation to improve the outcome of the patient with decreased side effects. Hence after giving treatment in a single injection, the visual analogue score improved immediately from 8/10 to 2-3/10 in activity and rest which persisted for the next 10 days and until now, no report of new onset of pain and complications but patient seldom feeling hot in abdominal at lower quadrant. For that (neuropathic conditions), we use amitriptyline 25 mg once a day. For injection, patient is satisfied. We continue for antineuropathic until today. it is also match with the research was done by Abd Elsayed A and Malyuk [6]. The limitations are that we didn't analyse the effectiveness of individual treatment for longer duration and it's only a single case report.

CONCLUSION

Chronic post surgical pain (CPSP) is a definite clinical entity after laparotomy. We report a successful management of such a case with ultrasound guided transversus abdominis plane block. The patient had very significant pain relief after procedure follow up continue until today without any side effects.

DECLARATIONS

Ethics approval and consent to participate. Permission for this study was obtained from the Ethics Committee of Universitas Sumatera Utara and H. Adam Malik General Hospital.

CONSENT FOR PUBLICATION

The Authors agree to publication in Journal of Society Medicine.

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COMPETING INTERESTS

None.

AUTHORS' CONTRIBUTIONS

Authors significantly contribute to the work reported. Approved the final version to be published, agreed on the journal to be submitted, and agreed to be accountable for all aspects of the work.

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