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Case Report *Volume 5 Issue 1*

Fluoroscopy Guided Superior Hypogastric Plexus Block in a Case of Recurrent Carcinoma Rectum

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Abstract

Rectal cancer is a complex and often painful condition necessitating multimodal approach to treat. Effectively managing pain and improving the quality of life is crucial for patients with rectal cancer. Superior hypogastric plexus (SHP) block is a safe and effective intervention in the management of pain associated with pelvic malignancies. It reduces opioid consumption, morbidity and can improve the quality of life in these patients. Here, patient had surgery previously and inspite of a possibility of disrupted anatomy of SHP, the patient had adequate pain relief.

Keywords: Rectal Cancer; Hypogastric Plexus; Pelvic Inflammatory Disease; Neurolysis

Abbreviations

SHP: Superior Hypogastric Plexus; NRS: Numerical Rating Score.

Introduction

Rectal cancer is a complex and often painful condition necessitating a multimodal approach to treatment. The superior hypogastric plexus (SHP) block has long been indicated in cancer associated visceral pelvic pain and its use has been extended to treat pelvic inflammatory disease, endometriosis, adhesions among other conditions [1,2]. SHP is a retro peritoneal structure which is present at the level of L5 and S1. Pelvic afferent and efferent sympathetic nerves from branches of the aortic plexus and fibers from L2 through L3 splanchnic nerves form the SHP. This plexus innervates most pelvic structures including the descending colon, prostate, rectum, and internal genitalia. Blocking SHP can alleviate the pain arising from these structures.

In this case of recurrent Ca Rectum, the anatomy of the plexus was expected to be distorted due to surgery and the disease process itself. However, the SHP block was successfully able to alleviate the pain of this patient.

Case Report

A 56 year old male patient, who is a known case of recurrent metastatic adenocarcinoma rectum, has undergone neoadjuvant chemotherapy followed by low anterior resection of rectum. Five years after surgery the patient developed lower abdominal pain not responding to conventional pharmacological treatment which includes Paracetamol and morphine. Patient was planned for bilateral superior hypogastric plexus block under fluoroscopy guidance.

Written consent was obtained from the patient. Under all ASA standards monitoring, patient in prone position, Anteroposterior view of the L-S spine was obtained. Now Scotty dog view of L5 spine is achieved. The needle entry point is at the lower part of the L5 vertebral body, just superior to the iliac crest as shown in Figure 1. With the endon view, the needle is advanced such that the needle tip is just anterior to L5 vertebral body (in lateral view). Non-ionic iodine dye is injected to confirm needle position as shown in Figure 2. One needle position is confirmed; with 6 ml of INJ. 0.25% Bupivacaine was injected.

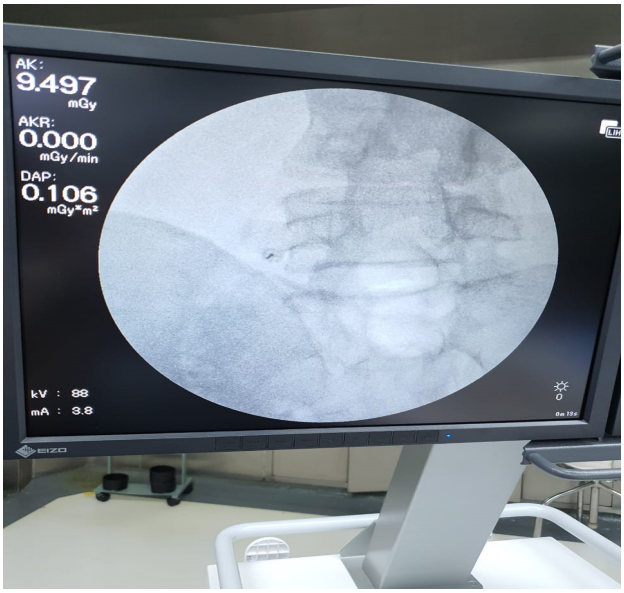

Figure 1: The needle entry point is at the lower part of the L5 vertebral body, just superior to the iliac crest.

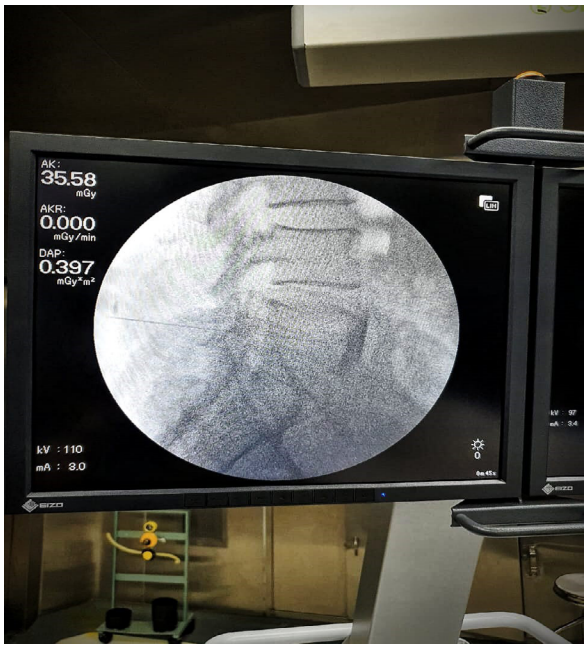

Figure 2: Dye spread highlighting the superior hypogastric plexus block.

Once patient gave verbal confirmation of pain relief, neurolysis was performed with 8 ml of 99% alcohol on each side. Numerical rating score and opioid consumption prior to procedure and after the procedure were compared. NRS

score prior to the procedure was 7. After the block NRS score was 0 in recovery area (immediately after procedure). NRS score was 2 in the subsequent days. Opioid consumption reduced from Morphine 110mg/day to Morphine 40mg/day after procedure. Morphine was tapered and stopped 7 days after the procedure.

Discussion

- Comprehensive pharmacological management is still regarded as the mainstay of patients with cancer related pain. Nevertheless a variable proportion of patients either do not achieve adequate pain relief or experience side effects such as constipation, drowsiness, opioid-induced hyperalgesia, respiratory depression, and addiction.
- SHP is located bilaterally at the level of lower third of the fifth lumbar vertebral body and upper third of the first sacral vertebral body at the sacral promontory and in proximity to the bifuracation of common iliac vessels. This plexus innervates the pelvic viscera and its blockade can alleviate pain [2].
- In this case it was observed that there was significant pain relief and reduction in opioid consumption after the administration of SHP block.
- In conclusion, SHP block is a safe and effective intervention in the management of pain associated with pelvic malignancies. It reduces opioid consumption, morbidity and can improve the quality of life in these patients. It is a diagnostic procedure and must be followed up with a neurolytic SHP block procedure.

References

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