Pakter Curved Needle Set refines Ultrasound Guided Ganglion Impar Neurolysis

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Citation

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Abstract

IMPLICATIONS STATEMENT

Technically Pakter Curved Needle Set can improve the success of the ultrasound guided ganglion impar neurolysis by more posterior projection of curved needle onto the anterior surface of coccyx.

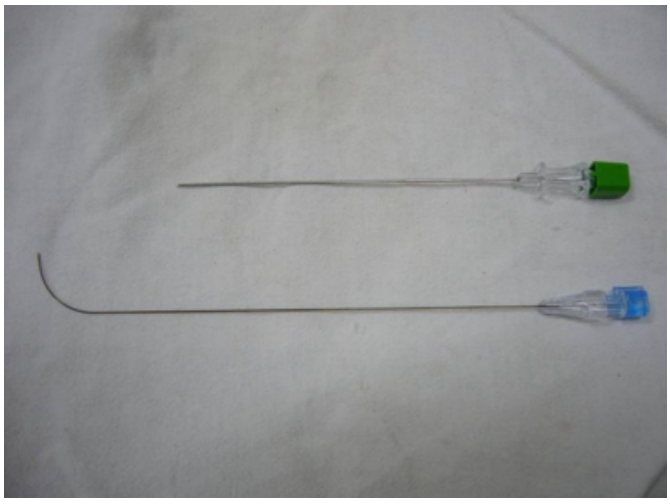
Dear Editor,

In an earlier case report ([1]), we had described the first ultrasound guided ganglion impar neurolysis (GIN) with straight Chiba needle for peri-anal cancer pain relief. The presented case series reflects an improvement in the technique made possible by Pakter curved needle set (PCNS) (Cook Medical Incorporated, Bloomington, IN, U.S.A.)[2].

Six patients with diagnosed carcinomas of vagina, vulva, rectum and anal canal who presented with unbearable pain during defecation and associated worsening of lesion related constipation due to morphine's side effect were included in the presented case series. Three patients received GIN with straight Chiba needle; the next three patients received GIN with PCNS that contains stainless steel straight needle with trocar tip 21-gage-10cm-long and nitinol curved disposable Chiba needle 25-gage-15-cm-long (Figure 1).

The straight needle in the needle set was introduced and directed cephalad through the anococcygeal ligament in the inter-gluteal area. The tip of needle was (ultrasonography guided in the sagittal image of the median plane) inserted into the retroperitoneal space posterior to rectum and in the pre-coccygeal space. The curved needle was then introduced through the straight needle with the bevel of the curved needle pointing posteriorly to allow the projection of the curved needle on to the anterior surface of the coccyx. For the enforcement of a diagnostic block after careful aspiration, 4 mL of bupivacaine 0.5% was injected. The spread of the solution was evaluated by ultrasound. The neurolysis was performed 1 day after the diagnostic block so that he could appreciate the pain-relieving effects of the intervention with local anesthetic and did not have lower satisfaction scores with pain management during the delayed onset of the analgesic effects of ethanol. For ganglion impar neurolysis, 4 mL ethanol 50% in bupivacaine 0.25% was administered. The procedure under sonographic guidance was performed in less than 5 min. The only complication encountered was pain during ethanol injection, which subsided spontaneously. Pain relief assessed at 1-week, 1-month and 2-month after the procedure was more than 80% in five out of six patients; sixth patient had only 40% pain relief due to enlarged pre-sacral and post-rectal lymph nodes observed on ultrasound. The only limitation with PCNS as compared to straight needle is the cost in Indian markets (70 USD compared to 15 USD).

Figure 1



In summary, technically PCNS can improve the success of the neurolysis by more posterior projection of curved needle,

away from rectum onto the anterior surface of coccyx where the ganglion impar is anatomically located.

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