

## CASE REPORT

## PAIN MANAGEMENT

# Chronic pelvic pain; a tragic miss

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## Abstract

Chronic pelvic pain is defined as 'pain in the perineal region, that can be somatic or visceral in origin, which persists for more than 6 months duration, and is unresponsive to analgesic therapy'. Its diagnosis is made on the basis of patient's history, detailed physical examination and radiological studies. One of the important, rare and mostly missed cause of this pain is coccydynia, either traumatic or atraumatic. The treatment of coccydynia includes supportive care, analgesic therapy as well as ganglion impar neurolysis.

Here, we report a case of a 42-year-old female suffering from severe chronic pelvic pain for the previous 15 years, for which she had been prescribed multiple analgesics including opiates and she underwent multiple surgeries without any relief.

She was a misdiagnosed case of coccygeal fracture which caused chronic pelvic pain for the past 15 y, and when treated with ganglion impar neurolysis gave her complete pain relief. On follow-up after one month, she was absolutely pain free with NRS 1/10. Coccydynia must be considered in differential diagnosis of chronic pelvic pain especially in females of child bearing age.

**Key words:** Chronic pelvic pain; Coccydynia; Ganglion impar block

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## 1. Introduction

Chronic pelvic pain is an intractable pain in the perineal region; it may be somatic or visceral in origin, and is usually present persistently for more than 6 months. It is unresponsive to conventional analgesic therapy. Visceral afferents innervating the perineum, distal rectum, anus, distal urethra, vulva and distal third of vagina converge at ganglion impar. Coccydynia is an important but overlooked type of pelvic pain. Coccydynia is defined as pain over and around the coccyx, characterized by pain localized to the tailbone that radiates into the lower sacrum and perineal region.<sup>1</sup> It affects females more frequently than the males.<sup>2</sup> It occurs after direct trauma causing fracture of the coccyx bone causing strain over the sacrococcygeal ligament and less commonly due to arthritis.

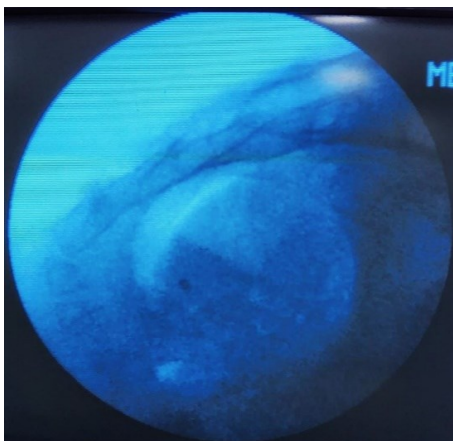
Conservative management of coccydynia includes simple analgesics and use of donut shaped coccyx support for sitting on to prevent irritation of or pressure on the sacrococcygeal ligament.<sup>3</sup> If the pain persists or does not respond to oral analgesics then interventional procedure known as ganglion impar block is performed.

However, advanced techniques include chemical neurolysis and radiofrequency ablation of the ganglion impar. There is no strong evidence to support surgical resection of coccyx bone – coccygectomy.<sup>4</sup>

## 2. Case History

We present a case of tragic suffering of a 42-y old female patient, presented to pain centre FFH, Rawalpindi, with severe chronic pelvic pain for the past 15 y. Her pain started after the birth of her first child by LSCS at the age of 27 y. After her first surgery she developed pain in lower abdomen which was dull, generalized and aching in character. Pain was increased at night and aggravated on long standing and walking. After multiple visits to her gynecologist, she went to a general surgeon after one year of her pain and underwent appendectomy which turned out to be negative. Her pain also did not improve at all with numeric rating scale (NRS) score of 9/10. She remained on multiple oral analgesics from different drug classes including opiates but had no relief. After another 5 y she underwent second LSCS and her pain aggravated

to NRS score of 10/10. Her gynecologist advised her to complete her family and plan for hysterectomy as uterus was considered to be the cause of her pain. She was put on IV tramadol and ketorolac once a day. Her chronic pelvic pain deteriorated her quality of life and daily activities. After another three years she had her third baby birth via LSCS and hysterectomy was done considering uterus as the culprit for her pelvic pain. After eight years in total and multiple abdominal surgeries, her pain was not settled. She remained on IV analgesics including opioids for another 7 y.

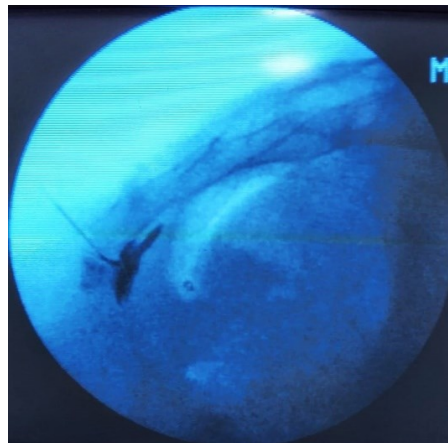


**Figure 1: Fluoroscopic picture showing fracture of coccyx**

After 15 y of her severe chronic pelvic pain she presented to our pain clinic, where she was assessed by the pain management team. On her detailed history and physical examination, she described heaviness and burning sensation in sacrococcygeal area. The pain was severe, excruciating and she could not maintain a sitting posture for more than 10 min. On further questioning she gave history of fall in bathroom onto buttocks during 3rd trimester of her first pregnancy. On examination her coccygeal area was severely tender with NRS score of 10/10. Sensory and motor examination was normal. No abnormality was found on systemic examination.

Her blood chemistry, radiological investigations, including Ultrasound abdomen and pelvis, past computed tomography (CT) and magnetic resonance imaging (MRI) of the pelvis and abdomen advised by her gynecologist did not reveal any pathology. However, fluoroscopic examination done at pain procedure room showed fracture of coccyx. On basis of history, physical and fluoroscopic examination the diagnosis of coccydynia was made as the cause of chronic pelvic pain. Chemical neurolysis of ganglion impar was planned. The procedure was explained with proper counseling to the patient. Written, informed consent was taken. Patient shifted to pain procedure room. A 20G IV line was maintained on her dorsum of the right hand. ASA standard II monitoring attached. Patient was put in prone position and a fluoroscopic image reconfirmed the

fracture of the coccyx. After giving local anesthetic drug, a 22G spinal needle was inserted through the



**Figure 2: Ganglion impar chemical neurolysis**

sacrococcygeal junction. The position of the needle was confirmed with radio opaque contrast dye. After confirmation 8 ml of absolute alcohol was administered followed by 2 ml of 1% lignocaine plain to alleviate the burning sensation secondary to alcohol. Instantaneously, the pain got relieved instantly, improving her NRS score to 4/10 after the neurolysis. She remained vitally stable and was shifted to recovery room for observation. After 1 hour of observation in the recovery room she had an NRS score of 2/10 with no complication. She was then discharged on oral anti-inflammatory drugs (celecoxib) for 2 weeks.

After one month, the patient visited us for a follow up. She was comfortable and had resumed her daily life routine. Her VAS score was 2/10. She was satisfied and her oral medications were tapered.

Thus, ganglion impar neurolysis is found to be an excellent cure for chronic pelvic pain due to coccydynia.

### 3. Discussion

Chronic pelvic pain is the presence of persistent pain in the perineal region for more than 6 months duration. It can be somatic or visceral in origin both having different pathophysiology. Considering the origin of the nerves from the coccygeal area the pelvic pain may be a referred pain from the coccyx known as coccydynia. Coccydynia is a very common pain which is characterized by pain localized to the tailbone area that radiates into the lower sacrum and perineum. It is five times more common in women than in men.<sup>5</sup> The sacrum and coccyx are located more posteriorly in the women which makes them susceptible to injury to the coccyx. A fall onto the buttocks may cause sprain, fracture, or dislocation of the coccyx. During vaginal delivery, the incidence of a sacrococcygeal ligament injury is very high and is one of the reasons for the coccygeal pain.<sup>3</sup> Coccyx is a delicate

and mobile bone which is supported by the sacrococcygeal ligament and has more chances of sprain. Trauma to the coccyx due to body positioning while being seated can also cause chronic sprain over the coccyx. Symptoms may be due to musculoskeletal disease, referred pain from lumbar pathologies or often be idiopathic. Chronic pain of the sympathetic nervous system (ganglion impar) can cause hyperalgesia and allodynia.

To confirm the diagnosis of sympathetically mediated pain, the most effective method is a diagnostic sympathetic block. Caudal epidural can also be done in outdoor clinic. Plancarte started using ganglion impar blocks to treat perineal pain in 1907. It is an effective pain relief modality for chronic pelvic pains of unknown origin as well as cancer pain of perineal origin, such as rectal cancer and cervical cancer. The original technique described by Plancarte et al. used a 22-gauge spinal needle introduced through the sacrococcygeal ligament and directed under fluoroscopic guidance retroperitoneally at the sacrococcygeal junction.<sup>5</sup> After confirmation with a contrast medium, local anesthetics or neurolytic agents are injected.<sup>2,5</sup> However, this method has a risk of inaccurate needle location and pain during the procedure. A modified approach uses a needle entry point below the transverse process of the coccyx, but there is a potential risk of inadvertent spread of chemical neurolytic agent leading to motor, sexual, bowel and bladder dysfunction due to damage to the sacral and coccygeal plexus.<sup>6</sup>

We performed ganglion impar blockade using a safe transsacrococcygeal approach and the patient felt less pain and was more comfortable. Repeated ganglion impar blocks can be done with LA to break pain cycle to get prolonged relief.<sup>7-9</sup> In cases of cancer and intractable pain, absolute alcohol or phenol is injected for chemical neurolysis.<sup>8</sup> The neurolytics must be injected carefully after confirmation of the contrast media spread to the retroperitoneal space, to avoid any complication including rupture of the pelvic organs. The neurolytics improve the success rate of neurolysis, but can also cause dysuria or dyschezia as a complication, therefore, much care is needed. Other complications include infections, bleeding, and damage to the sacrococcygeal disc. However, there were no complications in our case and the patient had become absolutely pain free on her follow up visit.

Radiofrequency ablation (RFA) is another good option for the treatment of coccydynia. Location of ganglion impar makes it ideal for neurolysis.

## 4. Conclusion

Clinical examination for chronic pelvic pain, especially in females, must consider coccydynia as a probable cause. This condition is easily identified and is

manageable with ganglion impar block by the pain specialists. Early diagnosis can avoid tragic prolonged suffering by the patients.

## 5. Conflict of interest

The authors declare no conflict of interest, and no external or industry funding was involved.

## 6. Authors' contribution

All authors took part in the conduct of this case and the manuscript preparation.

## 7. Ethical considerations

Ethical Committee approval was obtained vide, Ref. No. 622/ERC/FFH/RWP, dated November 11, 2022. Written consent from the patient was obtained for publishing this case report for academic purposes.

## 8. References

1. White WD, Avery M, Jonely H, Mansfield JT, Sayal PK, Desai MJ. The interdisciplinary management of coccydynia: A narrative review. *PM R*. 2022 Sep;14(9):1143-1154. [PubMed] DOI: [10.1002/pmrj.12683](https://doi.org/10.1002/pmrj.12683)
2. Hazazi A. Platelet-rich plasma for refractory coccydynia: A case report. *Journal of Spine Practice*. 2021;1(1):44-44. DOI: [10.18502/jsp.v1i1.9802](https://doi.org/10.18502/jsp.v1i1.9802) [Full text link]
3. Cha YD, Yang CW, Han JU, Song JH, Na W, Oh S, et al. Transsacrococcygeal approach to ganglion impar block for treatment of chronic coccygodynia after spinal arachnoid cyst removal: a case report. *Medicine*. 2016 Sep;95(39):e5010. [PubMed] PMID: [PMC5265959](https://pubmed.ncbi.nlm.nih.gov/27155555/) DOI: [10.1097/MD.0000000000005010](https://doi.org/10.1097/MD.0000000000005010)
4. Gunduz OH, Sencan S, Kenis-Coskun O. Pain relief due to transsacrococcygeal ganglion impar block in chronic coccygodynia: a pilot study. *Pain Medicine*. 2015 Jul 1;16(7):1278-81. [PubMed] DOI: [10.1111/pme.12752](https://doi.org/10.1111/pme.12752)
5. Toshniwal GR, Dureja GP, Prashanth SM. Transsacrococcygeal approach to ganglion impar block for management of chronic perineal pain: a prospective observational study. *Pain Physician* 2007; 10:661-6. [PubMed] [Free full text]
6. Scott-Warren JT, Hill V, Rajasekaran A. Ganglion impar blockade: a review. *Curr Pain Headache Rep* 2013; 17:306. [PubMed] DOI: [10.1007/s11916-012-0306-7](https://doi.org/10.1007/s11916-012-0306-7)
7. Plancarte R, Amescua C, Patt RB, Allende S. Presacral blockade of the ganglion of Walther (ganglion of impar). *Anesthesiology* 1990;73:A751. <https://doi.org/10.1097/0000542-199009001-00749>
8. Shane E, Brogan, Jill Sindt, Ashwin Viswanathan. *Interventional Pain Therapies: Ganglion of Impar Block*. Jane C. Ballantyne MD, FRCA, Scott M. Fishman, MD, James P. Rathmell, MD, editor, *Bonica Management of Pain*, Fifth edition. Philadelphia: Wolters Kluwer Health;2019. p.720-721
9. Michele Curatolo, Nikolai Bogduk. *Diagnostic And Therapeutic Nerve Block: Therapeutic Nerve Block*. Jane C. Ballantyne MD FRCA, Scott M. Fishman MD, James P. Rathmell MD, editor, *Bonica Management Of Pain*, Fifth edition. Philadelphia: Wolters Kluwer Health;2019. p.1607