

**Case Report***Copyright © All rights are reserved by Salina Zhang*

Ischiorectal Abscess Following CO₂ Laser Ablation for Condyloma and Pudendal Block

Salina Zhang* MD, Alex Hughes MD, Anne Sophie Shabab, Andrew Francis MD and Dante Roulette MD*Department of OBGYN, Summa Health System, USA****Corresponding author:** Salina Zhang, Department of OBGYN, Summa Health System, USA.**Received Date:** November 17, 2021**Published Date:** December 03, 2021**Abstract**

Pudendal block is a common procedure in obstetric and gynecology to provide pain relief when other options are limited. Complications of pudendal block include bleeding and very rarely infections. Most complications of pudendal block have been described after obstetric procedures; but pudendal block should be utilized more for gynecology procedures in select patients who have difficulty with pain control.

This article describes an abscess formation after a pudendal block done for a gynecology case. Management of complications include early recognition, imaging, and a multi-disciplinary approach. Last severe pudendal block complication was published in 1977 where the consequences of infection are severe to include death. With modern imaging technology and surgical techniques, severe complications of pudendal block should always be prevented.

Teaching Points:

- Pudendal block can be useful in both obstetric and gynecology procedures, but infection and abscess formation can be a rare complication.
- Early recognition and multi-disciplinary approach can provide the best outcome and minimize life threatening complications associated with pudendal block.

Introduction

The pudendal nerve block is often used as analgesia in obstetrics and gynecology for operative or second stage labor and small gynecologic procedures. It provides anesthesia to the lower vagina, vulva, and posterior peritoneum [1]. The block is achieved through administration of local anesthesia to the level of the ischial spine where the trunk of the pudendal nerve is located which can be performed either transvaginal or transperitoneal method and can be bilateral or unilateral [1,2]. Complications of pudendal blocks are rare but can include hematomas and, more rarely, infection of the soft tissue in the injected space [3].

In this case report, we will discuss the case of CO₂ laser ablation of anogenital condyloma with pudendal block that resulted in ischiorectal abscess and sepsis.

Case Report

A 37-year-old, G2P2 female with pruritic and painful anogenital condyloma which was resistant to trichloroacetic acid treatment in the office. She desired permanent removal of condyloma and was counseled on the risk of the procedure including bleeding, infection, and damage to nearby structures. The patient's past medical history include obesity with BMI of 29.9 kg/ m², everyday smoker, chronic hepatitis C with normal liver function, history of opioid use on suboxone.

In the operating room, the patient was prepped, iodine vaginal prep was used, and draped in the usual sterile fashion. External exam revealed 10-15 five mm or less condyloma on bilateral posterior vulva, around the rectum. Acetic acid was used to coat the

vulvar and perianal area, and a CO₂ laser was used to fulgurate the lesions. Due to patient's history of opioid use currently on suboxone, decision was made to proceed with pudendal block for pain control following the procedure. The ischial spine was palpated bilaterally along the posterior vaginal wall. The needle guide is placed 1 cm medial and inferior to the ischial spine. The needle is then advanced through the vaginal mucosa into the sacrospinous ligament. After aspiration, 15 ml of 1% lidocaine with epinephrine was injected. Lastly, Silvadene cream was applied topically to promote healing. The procedure was uncomplicated, and the patient went home on

post-operative day 0.

On post-operative day 7, the patient presented to the emergency department reporting left buttock pain, fever and chills. She denies any difficulty ambulating, abdominal pain, vaginal bleeding or drainage from surgical site. In the emergency department, she met criteria for sepsis based on temperature of 101.6F, hypotension, tachycardia, and leukocytosis. On exam, the condyloma lesions were healing well, but a 4-5 cm erythematous area was found on the left buttock with no discrete abscess. CT abdominal and pelvis showed ischioirectal abscess (Figures 1-3).



Figure 1-3: CT A/P with contrast showing left ischioirectal abscess in the frontal, sagittal, and transverse plane. Arrow denotes the abscess.

General surgery was consulted, and the patient was started on vancomycin and piperacillin/tazobactam, and 3 doses of clindamycin for board spectrum and necrotizing fasciitis coverage.

Despite antibiotic treatment for 12 hours, the patient had persistent fevers, and she was taken to the operating room on post-operative day 7 by general surgery. Rectal exam under anesthesia, flexible sigmoidoscopy, and drainage of left gluteal abscess with extension to ischioirectal space, Malecot drain placement was done. No bowel injury was identified on the flexible sigmoidoscopy. Purulent drainage from the deep left ischioirectal space was expressed, culture was positive for anaerobic gram-positive cocci, consistent with *Pepto streptococcus*.

Post operatively, patient was afebrile, vital signs improved. The Malecot drain had minimal amount of drainage, left buttock wound

was healing well. Infectious disease was consulted, vancomycin was discontinued, and after 4 days of piperacillin/tazobactam, she was transitioned to one week of PO Augmentin. The patient was discharged on post-operative day 4.

On post-operative day 21 from abscess drainage, she was followed up outpatient with general surgery. The surgical site was healing well, Malecot drain was removed and no long-term complication from the ischioirectal abscess was noted.

Discussion

Pudendal block is easy to perform and can result in over 80% reduction in perineal pain symptoms [8]. It can be great solution for pain control in obstetric and minor gynecological cases, especially for patient with history of substance use, chronic pain, and difficult pain control. Complications associated with pudendal block such as

hematoma, infection and abscess are still rare and only recorded on case report bases.

The typical presentation of post-pudendal block para-rectal abscess includes local symptoms in the form of swelling and hip pain. Ischio-rectal abscesses are less likely to be associated with systemic symptoms than abscesses located in submucosal or suprlevator spaces [4]. Regardless of infection origin, the normal course of treatment includes surgical drainage and antibiotic therapy, the latter of which lowers the risk of subsequent fistula [5].

There are only a few case reports of pudendal block complications available. Last published in 1977, there were a total of 11 sub gluteal abscesses following pudendal block [3,6,7]. These cases all arise from postpartum patients, and complications range from none to death. Due to the extent of infection and the potential deadly complication, once a diagnosis is suspected, immediate surgical debridement with a multi-disciplinary team including general surgery and orthopedic surgery should be considered [3,6,7].

In this case, ischio-rectal abscesses are most often thought to result from anal gland infections that extend through the external anal sphincters [2]. Formation secondary to seeding of the space post anesthetic injection is rare. But risk factors for post-operative infection such as smoking, obesity, history of hepatitis C in this patient can all contribute to the abscess formation.

The takeaway from this case suggests recognition of abscess formation with imaging, immediate multi-disciplinary approach, and source control with abscess drainage are important steps in

minimizing long term complications such as death as described in 1970s case reports.

Acknowledgement

None.

Conflict of Interest

Authors declare no conflict of interest.

References

1. Anderson D (2014) Pudendal nerve block for vaginal birth. *J Midwifery Womens Health* 59(6): 651-659.
2. American College of Obstetricians and Gynecologists' Committee on Practice Bulletins- Obstetrics (2019) ACOG Practice Bulletin No. 209: Obstetric Analgesia and Anesthesia. *Obstetrics and gynecology* 133(3): e208-e225.
3. Svancarek W, Chirino O, Schaefer Jr G, Blythe JG (1977) Retropsoas and subgluteal abscesses following paracervical and pudendal anesthesia. *JAMA* 237(9): 892-894.
4. Abcarian H (2011) Anorectal infection: abscess-fistula. *Clin Colon Rectal Surg* 24(1): 14-21.
5. Mocanu V, Dang JT, Ladak F, Tian C, Wang H, et al. (2019) Antibiotic use in prevention of anal fistulas following incision and drainage of anorectal abscesses: A systematic review and meta-analysis. *Am J Surg* 217(5): 910-917.
6. Hibbard LT, Synder EN, McVann RM (1972) Subgluteal and retrosoal infection in obstetric practice. *Obstet Gynecol* 39(1): 137-150.
7. Wnger DR, Getchell RG (1973) Severe infections following pudendal block anesthesia: Need for orthopaedic awareness. *J Bone Surg* 55(1): 202-207.
8. Vancaillie T, Eggermont J, Armstrong G, Jarvis S, Liu J, et al. (2012) Response to Pudendal Nerve Block in Women with Pudendal Neuralgia. *Pain Med* 13(4): 596-603.