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Intraperitoneal Spread of Ischiorectal Abscesses: A Rare Sequel

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Abstract

Background: Ischiorectal abscess is a common presenting abscesses. Presentation is usually benign. We present a study of 84 Patients treated at our hospital for large ischiorectal abscesses, of which 2 presented with signs of peritonitis and intraperitoneal spread. All cases were treated with timely surgical and medical management. **Methods:** This is a prospective descriptive study of cases of ischiorectal abscesses which were diagnosed and treated medically and surgically in Department of Surgery, Muzaffarnagar Medical College and Hospital, Muzaffarnagar, from October 2016 to October 2017. Cases were analysed in terms of their demographic variables, associated comorbidities and symptoms, previous interventions, associated systemic diseases and recurrence at follow up of upto 1year. **Results:** A total 84 patients of large ischiorectal abscess were included in the study. 58.33% were males. Median age of presentation was 55 years. 21.42% presented with extensive sepsis of the perineum while 2 patients presented with peritonitis. 32.14% had diabetes-mellitus, 28.57% had COPD. Median delay in presentation was 6 days. None had fistulous tract at presentation. 16 had negative microbial cultures, MRSA isolated in 4, MDR E.coli in 5, MDR-Klebseila in 4 and 19 had mixed growth. One patient with peritonitis expired. None had recurrence till 1year follow up. Ten patients of Fournier's Gangrene underwent second surgery to close the defect, rest healed by secondary intention. **Conclusion:** Peritonitis secondary to ischiorectal/ Perineal abscess is a rare sequlae. Both Peritoneal toileting with local debridement is required to save the patient. Suspicion of intraperitoneal spread should be kept when these patients present with peritonitis even in the absence of an enterocutaneous fistula.

Keywords: Ischiorectal Abscess, Peritonitis.

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Introduction

Ischiorectal abscess is a common surgical problem both in urban as well as in rural hospitals. Ischiorectal abscess accounts for approximately 30% of the anorectal abscesses. Ischiorectal fossa is a pyramidal space filled with connective tissue and fat, limited above by the levator ani and present on either sides of the rectum and anal canal. Ischiorectal abscess frequently occurs in adults and rarely in children. These abscesses usually develop secondary to cryptoglandular infection. Majority heal following simple deroofing and drainage but one third are associated with persistent fistula in ano resulting in recurrence, perianal sepsis, if not treated on time it may extend to peritoneum, retroperitonium and anterior abdominal wall and carries a substantial morbidity and mortality. Usually, they are localized and treated by adequate debridement/ drainage. Antibiotics are needed in immuno-compromised cases with extensive disease and cellulitis.

Subject and Methods

This prospective study has been carried out from October 2016 to October 2017 in the department of Surgery, Muzaffarnagar Medical College, Muzaffarnagar, UP. After taking ethical clearance, 97 patients of ischiorectal abscess and Fournier's Gangrene were included in this study. Informed consent was taken from all the patients.

Inclusion Criteria

Patients having large Ischiorectal abscesses and Fournier's Gangrene secondary to ischiorectal abscesses were included in this study.

Exclusion Criteria

Patients suffering from small ischiorectal abscesses and Fournier's Gangrene secondary to scrotal origin were excluded from this study.

In all patients, a thorough history was taken and physical examination was done after resuscitation. Their demographic variables, associated comorbidities and symptoms with special emphasis on the history of previous interventions, associated systemic diseases and recurrence were noted. Basic laboratory tests like CBC, PT, KFT, LFT were done in all cases. A decision was taken to debride the wound. 04 patients had extension in anterior abdominal wall upto the level of umbilicus of which 02 patients had extension of Ischiorectal abscess into peritoneal cavity and had features of peritonitis. All patients were operated in emergency. Samples of pus and fluid were taken and sent for culture and sensitivity. All patients were administered

appropriate antibiotics till healing of wound according to sensitivity reports.

Though ischiorectal abscess and Fournier's gangrene are common, peritonitis developing secondary to ischiorectal abscess is very rare. We hereby describe two cases presented with features of peritonitis and in shock.

A 55 years old non-diabetic normotensive male presented to us with history of pain in abdomen and obstipation of 2 days and discharging ulcer on left buttock after an incision and drainage procedure 5 days prior. On examination, patient had thready pulse of 104/min, with systolic blood pressure of 100 mm of Hg, was dehydrated with rigid abdomen. Standing X-ray of the abdomen showed no free air under the diaphragm. He was subjected to an exploratory laparotomy. Intraoperatively, pus was found in the peritoneum. On exploration, no bowel, bladder perforation was found. Transversalis fascia of lower abdomen was seen to be infected and wash given in abdomen seen to come out of perineal wound. Track was found connecting perineal wound and peritoneal cavity via the space of Retzius and Bogros. No fistula was found. Wash was given and wide excision of perineal wound done. Cultures grew MRSA. Patient recovered fully with antibiotics and dressing. No stoma was created.

A 50 years diabetic female presented with history of pain in abdomen and obstipation of 3 days and foul discharge from perineum. On examination patient had a pulse of 108/min with systolic blood pressure of 90mm of Hg, SpO2 on air was 90%. Patient was a known smoker, hypertensive and obese not taking medication of any kind. She had a rigid abdomen with no bowel sounds and a Fourniers gangrene involving left gluteal region extending to anterior abdominal wall with signs of inflammation on lower abdomen. Standing X-ray abdomen showed no free air in abdomen and of chest showed features of COPD. She was subjected to exploratory laparotomy with debridement of infected perineal tissue. No perforation was found in bowel, bladder and uterus. Pus was seen tracking from behind the symphysis pubis through the space of Retzius to Bogros and after involving lower layers of anterior abdomen into the peritoneal cavity. Thorough wash was given in the peritoneum. Patient was on vasopressors from time of admission and expired 6 hours after surgery.

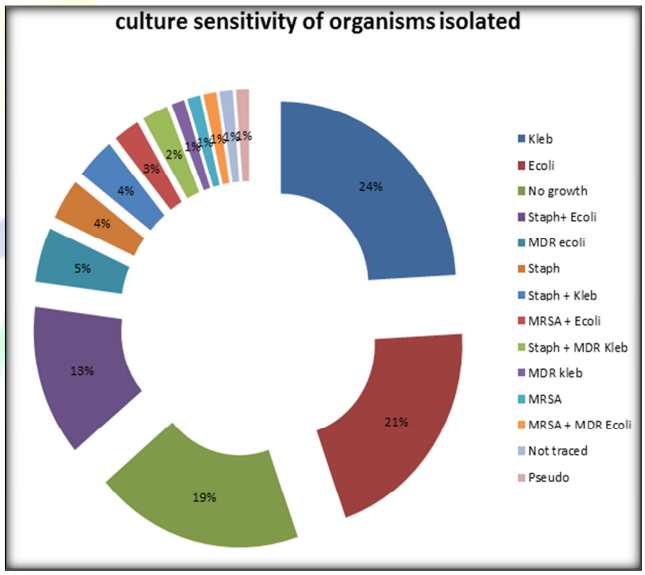
Results

A total 97 patients of large ischiorectal abscess and Fournier's Gangrene were admitted in department of Surgery from October 2016 to October 2017. Out of which 13 patients who developed Fournier's Gangrene secondary to abscess/cellulitis on scrotum were excluded. Out of 84 patients, 49 (58.33%) were males and 35 (41.66%) were females. Age at occurrence varied from 2 years to 90 years. Median age of presentation was 55. 18 patients (21.42%) presented with extensive sepsis of the perineum including the eponymous Fournier's Gangrene, 10 patients (11.90%) presented with shock. Out of these 2 patients (2.3%) presented with the involvement of anterior abdominal wall upto the level of the umbilicus and 2 patients (2.3%) presented with signs of generalized peritonitis.

Out of these 84 patients, 27 patients (32.14%) had diabetes mellitus and presented with blood sugar levels greater than 200 mg/dl. 22 patients (26.19%) had hypertension, 24 patients (28.57%) were chronic smokers and had COPD. Median delay in presentation to the hospital was 6 days after beginning of pain and fever. None of the patient had fistulous tract at presentation.

Though large Ischiorectal abscesses and Fournier's Gangrene are very common but the peritonitis secondary to Ischiorectal abscess is very rare. We have described 2 cases with features of peritonitis and shock of which one recovered completely and other expired six hours after surgery.

16 had negative microbial cultures, MRSA were isolated in 4 samples, MDR E. coli in 5 samples, MDR Klebseila in 4 samples and 19 samples had mixed growth. One patient with peritonitis expired. None had recurrence till 1 year.10 patients of Fournier's Gangrene underwent second surgery to close the defect, rest healed by secondary intention.



Discussion

Ischiorectal abscess is one of the common surgical problems in practice. In 1878; Chiari,[1] propounded nonspecific cryptoglandular infection as major cause of Ischiorectal abscess. Factors like tuberculosis, trauma, foreign body, immunosuppressive diseases, extension of malignancy and inflammatory bowel diseases may present as an ischiorectal abscess.[2,3] Microtrauma and fecal stasis induced the development of pyogenic cryptitis with subsequent formation of anorectal abscesses.[4,5]

In this part of the country most of these patients are initially attended by general practitioners. A high percentage of misdiagnosis and mismanagement of these cases have been reported and attributed to a lack of clinical training among non surgical specialists.[6,7]

The main concern following drainage of ischiorectal abscess is formation of fistula-in-ano, frequency of which varies between 26% to 37% according to different studies.[8] However, in our study, we did not find any fistula at presentation neither any of the patient developed it in 1 year of follow-up.

In our study, it was more common in males (58.33%), which is in accordance with other studies.[9,10] Clinically all patients had progressive pain and swelling in perineal or gluleal region, which resulted in swinging fever with hyperemia and induration at local site. These progressed to Ischiorectal abscess and shock with increasing area of involvement. With a good clinical history and thorough clinical examination we can reach the diagnosis and imaging aids are also helpful for greater accuracy. Jimeno et al,[11] also reported this when the clinical history was associated with imaging of abscess.

The key to the management of Ischiorectal abscess is adequate and timely drainage. If not drained timely lethal sequlae like necrotizing fasciitis or very rarely spread to either peritoneal cavity or retroperitoneal spaces,[12,13] and in anterior abdominal wall can occur which carries high morbidity and mortality.[14]

We managed 2 cases of IR abscess extended to anterior abdominal wall and 2 cases presented with features of peritonitis and shock and none of the patient presented with the retroperitoneal involvement. The spread to the peritoneal cavity may be due to necrosis of the tissue. 3 cases of IR abscess with peritonitis have been reported and all the three were managed by stoma creation[12] and one case was reported by Lopez et al.[14,15] We performed exploratory laparotomy and drained the intraperitoneal pus without stoma formation in both the cases. One patient recovered completely and other one expired within 12 hours of surgery due to uncontrolled sepsis.

Conclusion

Peritonitis secondary to ischiorectal/ Perineal abscess is a rare sequlae. Both Laparotomy and Peritoneal toileting with local debridement is required to save the patient. Though laparotomy is rarely done but should be considered in patients with features of peritonitis even in absence of enterocutaneous fistula.

References

1. Ommer A, Herold A, Berg E, Fürst A, Sailer M, Schiedeck T. German S3 guideline: anal abscess. International journal of colorectal disease. 2012 Jun 1;27(6):831-7..
2. Billingham RP, Isler JT, Kimmins MH, Nelson JM, Schweitzer J, Murphy MM. The diagnosis and management of common anorectal disorders. Current problems in surgery. 2004 Jul 1;41(7):586-645..
3. Ugur M, Toglu G, Benzin F, Bulbul M, Recurrent perinanal abscess due to sacral tuberculosis, Kolon Rektum Hast Derg 2010; 20: 143-146.
4. Whiteford MH, Kilkenny J, Hyman N, Buie WD, Cohen J, Orsay C, Dunn G, Perry WB, Ellis CN, Rakinic J, Gregorcyk S. Practice parameters for the treatment of perianal abscess and fistula-in-ano (revised). Diseases of the colon & rectum. 2005 Jul 1;48(7):1337-42..
5. Pople IK, Ralphs DN. An aetiology for fistula in ano. British journal of surgery. 1988 Sep;75(9):904-5..
6. Goldstein ET. Outcomes of anorectal disease in a health maintenance organization setting. Diseases of the colon & rectum. 1996 Nov 1;39(11):1193-8..
7. Lamah M, Ahmad SM, Charalampopoulos A, Ho J, Leicester RJ. Three-year evaluation of a rapid-access coloproctology clinic. Digestive surgery. 2000;17(2):150-3..
8. Vasilevsky CA, Gordon PH. The incidence of recurrent abscesses or fistula-in-ano following anorectal suppuration. Diseases of the Colon & Rectum. 1984 Feb 1;27(2):126-30..
9. Akkapulu N, Dere Ö, Zaim G, Soy HE, Özmen T, Doğrul AB. A retrospective analysis of 93 cases with anorectal abscess in a rural state hospital. Turkish Journal of Surgery/Ulusal cerrahi dergisi. 2015;31(1):5..
10. Ramanujam PS, Prasad ML, Abcarian H, Tan AB. Perianal abscesses and fistulas. Diseases of the colon & rectum. 1984 Sep 1;27(9):593-7..
11. Jimeno J, Vallverdú H, Tubella J, Sánchez-Pradell C, Comajuncosas J, Orbeal R, Hermoso J, Gris P, López-Negre JL, Urgellés J, Parés D. Prospective analysis of clinician accuracy in the diagnosis of benign anorectal pathology: the value of clinical information. Revista Espanola de Enfermedades Digestivas. 2012 Mar 1;104(3):122..
12. Mitra A, Yadav A, Mehta N, Varma V, Kumaran V, Nundy S. Complicated Perianal Sepsis. Indian Journal of Surgery. 2015 Dec 1;77(3):769-73..
13. Hanley PH. Anorectal supralevator abscess-fistula in ano. Surg Gynecol Obstet 1979;148:899–904.
14. Darlington CD, Anitha GF. A rare case of ischiorectal abscess presenting with extensive abdominal wall abscess. International Surgery Journal. 2016 Dec 8;3(2):963-4..
15. López NR, Gómez AM, Martínez LL, Montalvo MB. Ischiorectal Abscess With Intra and Preperitoneal Dissemination. Cirugía Española (English Edition). 2017 May 1;95(5):295.

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