

## CASE REPORT

### **RETROPERITONEAL NECROTIZING FASCIITIS WITH ADNEXITIS PRESENTING AS ACUTE ABDOMEN IN A 40 YEAR UNMARRIED FEMALE PATIENT: A CASE REPORT**

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**ABSTRACT:** Retroperitoneal Necrotizing Fasciitis is a rare variant of Necrotizing fasciitis (NF) which is fulminant and potentially lethal. Although NF is a common occurrence in Indian Subcontinent due to low standard of living and poor hygiene Necrotizing fasciitis of retroperitoneum is extremely rare and only few cases have been reported till now. Herein we report a case of a 40yr unmarried female patient presenting to emergency department for acute abdomen and on exploratory laparotomy it was found out to be a case of extensive retroperitoneal necrotizing fasciitis with pregangrenous right ovary and adjacent fallopian tube.

**KEYWORDS:** Retroperitoneal Necrotizing Fasciitis; Necrotizing Fasciitis; Dishwater pus; Peritonism; Acute Abdomen; Pelvic Inflammatory disease, Adnexitis; Salpingo- oophoritis.

**INTRODUCTION:** Necrotizing Fasciitis (NF) first described by Pare' in sixteenth century is a rapidly spreading infection and necrosis of skin, superfiscial & deep fascia and soft tissue with extensive destruction and toxæmia caused by rapid proliferation of microorganisms.

The diagnosis of NF is purely clinical with laboratory parameters only suggestive. Usually seen in immunocompromised states such as advanced age, CRF, DM, poor nutrition etc. It is a common finding in Indian subcontinent due to low standard of living and poor hygiene. It most commonly involves the extremities, lower abdominal wall, groin & perineum. But involvement of retroperitoneum in NF is a rare occurrence even in this part of the world with very few cases have been reported till now. Here we present a case of 40year old female patient with retroperitoneal NF presenting as peritonism.

**CASE REPORT:** A 40years old unmarried female from Sambalpur (Odisha) presented to the emergency department of VSS MEDICAL COLLEGE & HOSPITAL, ODISHA with chief complaints of pain over whole abdomen including severe loin pain associated with gradual distension of abdomen over last 6 days, constipation and multiple episodes of vomiting over last 3 days. She had fever and lower abdominal pain 8 days back. No other significant history. Her menstrual history and bladder habit were normal. She belonged to lower socioeconomic status was malnourished and addicted to tobacco. On examination she was febrile and her pulse rate was 120 per minute, regular and low volume and blood pressure was 80/60 mm of Hg. Abdominal examination revealed moderately distended abdomen with tenderness and guarding over whole abdomen and bowel sound was sluggish. Renal angles were nontender and liver dullness not obliterated. On PV examination there was foul smelling mucopurulent discharge and PR examination was normal. No other significant findings found. On X-ray there was multiple air fluid levels and no gas under diaphragm. USG

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revealed minimal abdominal anechoic collection and multiple dilated aperistaltic loops. CT scan could not be done. Serum level of amylase, lipase, sodium, potassium were within normal limits. Urine analysis was normal. Our patient's condition was deteriorating despite adequate resuscitation and antibiotic coverage. So with a provisional diagnosis of Acute abdomen with peritonitis an exploratory laparotomy was done after 24hrs of her admission. Intra-operative finding showed presence of foul smelling watery pus (dish water pus) in pre-peritoneal layer and gangrenous lateral peritoneal wall. There was minimal collection in peritoneal cavity and extensive necrosis of retroperitoneum extending to lateral parietal peritoneum. Stomach, entire small gut and large gut found to be normal but mildly distended and aperistaltic (paralytic ileus).

All the solid visceral organs including kidneys and ureter were normal. The right ovary and adjacent fallopian tube found to be dark and swollen and left ovary, tube and uterus was normal. With the above findings an intraoperative diagnosis of retroperitoneal necrotizing fasciitis probably originating from right salpingo-oophoritis was made. Extensive debridement of necrotic peritoneum and retroperitoneal soft tissue done along with right salpingo-oophorectomy. Multiple corrugated PVC drains were given in subphrenic space, morrison's pouch, pelvic space and space of retzius. Retroperitoneal necrotic tissue along with pus and vaginal discharge sent for culture sensitivity. Postoperatively patient was monitored in ICU. But her condition deteriorated and eventually she died on 3<sup>rd</sup> postoperative day. The culture report of both the retroperitoneal drainage fluid and pervaginal discharge was obtained. Interestingly both revealed a polymicrobial infestation with clostridia, E. coli and group-A streptococcus.

**DISCUSSION:** Retroperitoneal necrotizing fasciitis is a rare variety of NF with only few cases reported till date. Though NF is a clinical diagnosis preoperative diagnosis of retroperitoneal-NF is a difficult task. Previously reported cases of retroperitoneal NF shows wide variety of clinical findings like flank pain,<sup>1</sup> feature of peritonitis<sup>2,3</sup> fever and abdominal pain<sup>4</sup>, features mimicking appendicitis<sup>5</sup>. Usual source of infection are diverticulitis, perianal abscess, chronic pyelonephritis and perinephric abscess, post haemorrhoidectomy etc. Our is a case of retroperitoneal NF presented with acute abdomen and our preoperative provisional diagnosis was acute abdomen with peritonitis with PID. The diagnosis was confirmed intra operatively and extensive debridement done. Though exact cause is not clear we hypothesize that the initial infection was probably the right salpingo-ophoritis with subsequent spread of infection to pelvis and retroperitoneum. The death of the patient may be attributed to late diagnosis as well as poor preoperative nutritional status and general condition of the patient. All previous reports cite high mortality rate of retroperitoneal NF due to rapid progression difficulty in diagnosis and late intervention.

**CONCLUSION:** Retroperitoneal necrotizing fasciitis is a rare condition which has a fulminating course with high mortality rate. It has got varied clinical presentation. So vigilance and high index of suspicion with early intervention is of utmost importance to save the patient. Our case gives an insight to the different mode of presentation as well as another probable cause of Retroperitoneal necrotizing fasciitis.

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**Fig.1: dilated bowel loops with multiple air-fluid levels**



**Fig. 2: dishwater pus in preperitoneal space with normal bowel loops**



**Fig. 3: gangrenous retroperitoneum and lateral peritoneal wall with dishwater pus in pre-peritoneal space**



**Fig. 4: Pregangrenous ovary with adjacent fallopian tube**



**Fig. 5: after excision of gangrenous tissues and placement of drains**

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