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Case Report

A RARE CASE REPORT OF POST CESAREAN UTERINE INCISIONAL NECROSIS COEXISTANT WITH OGILVIE SYNDROME

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ABSTRACT

Here we report a case of uterine incisional necrosis which is a rare complicate of cesarean section. A 35 years old multiparous woman was referred to a central hospital due to post cesarean eclampsia. She exhibited fever non responsive to wide spectrum antibiotics with normal image except of pleural effusion. One to late postpartum hemorrhage and severe abdominal distention she operated again and hysterectomy was done due to surgical finding of uterine incisional necrosis. Abdominal distention progressed again fulfilling ogilvie syndrome criteria result in next surgery and cecostomy. In difficult post operative period she did not survived. Uterine incision necrosis should be considered in severe cases of post partum hemorrhage and infection.

Keywords: *Necrosis, Colonic Pseudo-Obstruction, Postoperative Hemorrhage, Fever*

INTRODUCTION

Uterine incisional necrosis is determined as surgical observation as histopathologic definition of separation in necrosis of cesarean incision (Rivlin *et al.,* 2004). This entity is a rare condition. We describe here a patient with post cesarean incisional necrosis coexistant with hemorrhage and Ogilvie syndrome.

CASES

A 35 years old multiparous woman was referred to a central hospital due to eclampsia 12 hours after cesarean section. She was alert in admition with stable vital signs Blood pressure was 140/100 and there was no neurologic abnormality. Brain CT scan was normal. The patient showed an episode of dyspnea and chest pain 2 days after primary operation. Sub specially heart and lung consultation requested chest x Ray and lower extremity color flow Doppler which were normal. From the day 3 of the operation, she was febrile and tachycard wide rauge antibiotherapy was started normal pelvic and abdominal computed tumographic scan (CTscan] was done following hematoma, septic trombophlebitis and incisional necrosis. Pulmonary CT scan revealed bilateral pleural effusion fever and tachycardy continued. In the day 7 she was transferred to intensive care unit and hemoglobin fall was observed. Normal cardiac echocardiography was done for infectous endocarditis. From the day 8 abdomainal distention was added to fever, tachycardia, and pleural effusion. Abdominal distention was progressive and non responsive to conservation management. In the day 13 an episode of sever vaginal bleeding with increasing abdominal distention and $8 \times 6_{\text{cm}}$ hematoma besides cervix and hemoglobin fall resulted in decision for laparatomy.

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Surgical finding of uterine incision necrosis guided to hysterectomy. Uncontrolled oosing of the pelvic obligated pelvic packing. General surgeon decompressed distended bowel loops and rectal tube was placed under direct view. Packed long guases were removed 2 days later. She remained in ICU under assisted respiration without extubation. She needed intermitant hemodialysis and 14 days after re-operation tracheostomy was performed. In the day 28 abdominal distention was progression again fulfilling Ogilvie syndrome criteria with 25 $_{cm}$ with of the cecum. She was operated again and cecostomy was performed. Due to necrosis of fasica, it was hold open. Patient was intermitantly under hemodialysis, abdominal washing, and respiratory assistance in ICU. In the day 68 of the primary surgery sever pulmonary dystress resulted in cardiopulmonary assest and unsuccessful resuscitation.

DISCUSSION

Review of literature introduce infection and mechanic-technical factors include hematoma as the most common causes of incisional necrosis (Rivlin *et al.,* 2004). Hematoma formation in the cesarean incison might result in bacterial infection (Rivlin *et al.,* 2004). "Maldjian" has reported 5 incisional separation, diagnosed by magnetic resonance inaging (MRI) besides to a hematoma in 4 out of 5 cases (Maldjian *et al.,* 1998). Location of incision close to cervix which is less vascular increase probability of the necrosis (Heys, 1963; Ross and Galliford, 1974). "Faro" reported disapearing lower segment of the uterus in severe cases, with connection of cervix to body in posterior part (Faro, 1997).

In a case report of incisional necrosis, repair of incision was done using chromic catgut material (Wagner and Bedard, 2006). In most of the European and Japanise countries, catgut is omitted from the market. Superiority of catgut is mainly in low cost and is predicted to be completely aboundoned in the near future (Rock, 2011). In this case chromic catgut was used for uterine repair. Some authorities consider it as out of date material (Rock, 2011), although is not illegal (Chunningham *et al.,* 2010).

In the present case, primary post cesarean imaging (day 3). Including ultrasonography and CT scan did not reveal hematoma formation. In the day 13 repeat sonography showed large hematoma (8_{cm}) besides cervix. Surgical findings confirmed low incision, although due to complete necrosis, careful judgment was not possible.

Exact risk factors for this complication are not known. Review of literature mention to risk factors such as infection, emergency surgery, diabetes, nuliparity, very low uterine incision, multiparity, malnutrition, old age, imunosuppresion and obesity (Rivlin *et al.,* 2004; Heys, 1963; Ross and Galliford, 1974; Wagner and Bedard, 2006; Intaraprasert and Siwawej, 1984; Burke and Gallup, 2003). In this case infection, multiparity, emergency surgery, eclampsia and old age were present.

Risk factors of incisional necrosis seem to be the same as post cesarean infections conditions (Rivlin *et al.,* 2004). "Faro" describes pathophysiology as infected hematoma resulting in abscess formation and necrosis of the incision (Faro, 1997). In a study 54 case of infection following cesarean non-responsive to wide spectrum antibiotics were studied by CT scan. Five out of 54 cases revealed incisional necrosis (Brown *et al.,* 1991). In our case, she was afebrile at first and fever non- responsive to antibiotics was detectable from day 3. In day 13 sever late post-partum hemorrhage happened.

"Faro" believed in bimanual pelvic examination to be helpful to diagnose this entity by direct exam of the defect (Faro, 1997). Some authors consider definite diagnosis just by surgical findings (Rivlin *et al.,* 2003). Late post partum bleeding with unknown etiology is reported in some case reports of cterine incisinal necrosis (Rivlin *et al.,* 1984).

Diagnostic value of CT scan in puerperal infectious complications specially pelvic abscess, septic thrombophlebitis is useful. However, diagnostic efficacy of uterine incisional necrosis is not enough (Brown *et al.,* 1991; Twickler *et al.,* 1991). "Maldjian" meutioned to MRI as a better modality in comparison to CT scan in diagnosis of uterine necrosis (Rivlin *et al.,* 2004; Maldjian *et al.,* 1998). Some other studies are in favor of diagnostic value MRI and surgical findings and not CT scan (Brown *et al.,* 1991; Twickler *et al.,* 1991). In the present case, CT scan in day 3 was not helpful and diagnosis was made in re-operation in day 14. Incisional necrosis might be more common due to undiagnosed cases (Intaraprasert and Siwawej, 1984).

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Sever late postpartum hemorrhage might be the presenting symptom 11 days to 12 weeks after primary surgery (Baba *et al.*, 2005), as our case. Pleural effusion was detected in 3 out of 20 studied cases of incisional necrosis (Rivlin *et al.*, 2013). In our case pleural effusion was present from day 3-4. Presentation symptoms, signs and paraclinic findings of case reports are summarized in table I.

Incisional necrosis should be considered as a rare etiology of sever postpartum bleeding. Some mild cases might remain undiagnosed (Ross and Galliford, 1974; Keane, 1973; Kindig *et al.*, 1998). Case of such bleeding is probably necrosis of uterine vessels. Pattern of bleeding is painless, intermitant some times with few weeks interval, from days 7 to 28 after surgery (Keane, 1973). In all cases of sever postpartum bleeding after cesarean section uterine incisional defect should be evaluated (Heys, 1963). Abdominal distention is reported in incisional necrosis cases (table I). In sever situations called as Ogilvie syndrome, bowel distention is severing and there is no obstruction. Ogilvie syndrome is a rare complication of surgery and cesarean (Kotsev, 2011). Diagnosis is clinical. Treatment is based on the severity. In less than $9\text{-}10_{cm}$ dilatation of the cecum, non-surgical management and in more dilatation, colonoscopic decompression and rectal tube and sometimes cecostomy are useful (Kotsev, 2011).

Bowel distention presenting in incisional necrosis are reported in 3 case reports (Rivlin *et al.*, 2013) and our case. In the present case, abdominal distention was sever up to 25_{cm} diameter of cecum and fulfilled criteria of Ogilvie syndrome, resulting in cecustomy by laparotomy.

Table I: Summary of incisional necrosis case presentations

Author	Number of cases/time	Symptoms	Signs	Paraclinic Findings
Rivlin *et al.*, (2013)	20		Abdominal distention (3/20)	- hematoma (2/20) - pleural effusion (3/20) - abdominal fluid (4/20) - dilated bowel (3/20)
Dhar and Misra (2012)	1 (week 10)	- Vaginal bleeding - pelvic pain - dysmenorrhea - intermenstrual bleeding	Abdominal tenderness bleeding	- hematoma
Wagner *et al.*, (2006)	1 Day 43	Sever vaginal bleeding	Abdominal tenderness bleeding -Fever	-hemoglobin drop
Arab *et al.*, (2014) [present case]	1 Day 13		- bleeding abdominal - distention - (ogilvie syndrome)	- pleural effusion - abdominal distention - hemoglobin drop

Incisional necrosis is treated by hysterectomy (Wagner and Bedard, 2006; Sengupta and Misra, 2012) and it was done in our patient. In most case reports of in contrast to our case, patients survived after surgery. Probable etiology of her mortality might be severity of condition, coexisting eclampsia, Ogilvie syndrome, several operations and prolonged sepsis. In conclusion incisinal necrosis, although rare, should be considered in late cesarean bleeding and infection especially with history of risk factors. In seems reasonable that many case not sever enough to be operated, are not diagnosed.

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