

Rupture of renal artery aneurysm during cesarean section: a case report

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Introduction:

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Renal artery aneurysm (RAA) "occurs to focal dilatation of artery secondary to weakness of the arterial intima and media", RAA is a rare condition with an incidence of 0.01 – 1%.¹ Rupture RAA is considered as an extremely rare event during pregnancy. In this regard, the urologic and obstetric literatures are deficient. It is very difficult to diagnose a rupture RAA during pregnancy, i.e. no pathognomonic presentation. During pregnancy and when rupture happened, the clinical presentation can be confused with those other common conditions e.g. rupture uterus or placenta abruption. Majority of the cases are incidentally discovered, even it is only identified after autopsy.

Case presentation:

A fifth cesarean section was done for 30 years old women presented with placenta previa. She was gravida 6 para 5. Cesarean section was an elective one. She gave a live birth male weighing 2.4 kg. Hysterectomy was carried out after sever bleeding during operation. Ten units of blood were given in addition to other management steps. Urologists and general surgeon were consulted. The patient was dead. Exploration was done and revealed a rupture of left renal artery aneurysm.

Discussion:

It was the 5th cesarean section for women. Literature documented that previous history of cesarean sections is the primary risk factor for developing placenta previa.¹ Other risk factors are gestation with male fetuses and multiparity.³ The mentioned risk factors were characters of the reported case. It was stressed that multiple cesarean sections affect adversely the health of women.² It was the 5th cesarean section. RAA is an unusual diagnosis. Hemodynamic changes during pregnancy that is increased blood volume and cardiac output, raised intrabdominal pressure and hormonal alterations, affect the arterial wall and increased the risk of rupture RAA, more so in the 3rd trimester.³ The reported case was gravida 6 which might enhanced the formation and rupture of RAA. It was reported that women with RAA and unusual number of women were multiparous.⁴ Owing to the pregnancy state, RAA was missed as cesarean section was planned for delivery of a case of placenta previa. The final diagnosis made only after exploration. It is the same as mentioned in literature.⁵ In this case,

RAA was on the left side. Literature reported that RAA was often on the left side.⁴ Since 1970, a left sided predominance of RAA has not been shown in the published reports.⁶ Regarding diagnosis of the intact RAA during pregnancy, there are no previous reports considered this issue. This report might be the first one in Iraqi literature of rupture of RAA during pregnancy.

Conclusion:

The possibility of a ruptured RAA have to be determined in pregnant women with evidence of retroperitoneal hemorrhage. Imaging facilities should be available in theater rooms to be used immediately.

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