Cesarean Section followed by myomectomy in a pregnancy complicated by left intraligamentous myoma
(a case report)

Arifuddin Djuanna

Abstract

A 20-year-old primigravida with 38th weeks of gestation complicated with a left large solid intraligamentous uterine tumor. The operation started with lower segment cesarean section to deliver the fetus. Intramural uterotonica was given and the uterus contracted well; intra- and up to 24 hours post-operatively oxytocin infusion was administered. Double circle stitching technique was performed on lateral side of the mioma before starting myomectomy. No blood transfusion was given. The histopathological report was leiomyoma. She was discharged in healthy condition 4 days post-operatively. (Med J Indones 2004; 13: 66-8)

Keywords: Myomectomy, cesarean section, intraligamentous myoma

Uterine leiomyomas are the most common uterine neoplasms. They are benign proliferation of smooth-muscle cells and fibrous connective tissue that arise from the uterine smooth muscle. They are noted clinically in 20% - 30% of women older than 30 years of age and are found in up to 75% of hysterectomy specimens. In Indonesia, Tangkudung and Raharjo reported that the prevalence of leiomyomas are 10.30% and 11.87% respectively, of all gynecologic patients. Other study reported that the occurrence of leiomyomas was up to 40% of women after turning 35 years old.

In most cases, uterine leiomyomas do not necessarily jeopardize pregnancy. However, these pregnancies will have leiomyoma related-complications. These complications appear to be related to size, number, and site of leiomyomas. Utterine leiomyomas in pregnancy are found in approximately 1%, excluding undetectable small leiomyomas. While Merrill reported that the incidence of leiomyoma during pregnancy varies from 0.3% to 7.2%.

The effects of uterine leiomyomas on women and pregnancy are as follows: causing infertility, increasing risks of abortion, producing fetal malpresentation, obstructing progress of labour, causing uterine inertia and atonia, causing difficulties in delivering placenta, and inhibiting uterine involution process during parturition. Loeffler and Noble reported that 1/3 of the 180 women with myomectomy experienced abortion during their pregnancies, only 41 patients gave birth and 25 % of them underwent cesarean section.

The size of leiomyomas during pregnancy tends to enlarge due to the presence of edema and degeneration, and not due to the proliferation process of tumor. The rapid growth of tumor particularly occurs in the first few months of pregnancy, while red degeneration occurs in both period of pregnancy and...
parturition. In addition, in the rarely cases torsion of pedunculated tumors can cause an acute abdomen syndrome.\textsuperscript{9-12}

CASE

A 20-year-old primigravida was referred to our antenatal clinic. Her uterine size was larger than what was expected for her period of amenorrhoea. An ultrasound examination revealed a single fetus corresponding to 38 weeks and a left large solid intraligamentous uterine tumor.

The operation started with lower segment cesarean section to deliver a male infant, weight 2.450 grams, with an Apgar score of 8 at one minute and 10 at five minutes. Intramural uterotonica (10 units) was given. After the uterine incision was closed, and the uterus contracted well, intra- and up to 24 hours post-operatively oxytocin infusion was administered.

Double circle stitching technique was performed before starting myomectomy. A solid tumor size 17 cm x 15 cm x 12 cm was enucleated with minimal blood loss. No blood transfusion was given. The histopathological report was leiomyoma. She was discharged in healthy condition 4 days post-operatively.

DISCUSSION

Uterine leiomyoma is a benign uterus tumor, which consists of uterine muscle cell and its tissue. Depending on the composition, it could be benign, compact, and located in diverse areas. Due to the large size and the change in vascularisation, uterine leiomyoma could experience hyalin, red and cystic degeneration.\textsuperscript{1, 8, 10}

Uterine myomas are found in approximately 0.3 to 2.6 \% of pregnant women. The vast majority of these myomas is small, asymptomatic, and often just a chance finding even since the use of ultrasonography has become widespread. Myomas do not necessarily jeopardise pregnancy. However, approximately 10 – 40\% of these pregnancies will have myoma related complications. These complications appear most often to be related to the size and site of the myoma, in particular with regard to placental site. Myoma related complications are spontaneous abortion, premature rupture of membranes, preterm labour, fetal mal-presentation, postpartum hemorrhage, cesarean delivery and post cesarean hysterectomy. In this case the location of myoma was intraligamentous, so the myoma did not jeopardise pregnancy. In some cases, myoma did not jeopardise the pregnancy and the baby can even be delivered transvaginally safely. Morbidity and mortality caused by postpartum hemorrhage increase in certain cases. Manuaba\textsuperscript{11} reported mortality caused by postpartum hemorrhage in pregnancy complicated with myoma after a normal vaginal delivery. Chung et al\textsuperscript{12} reported a myomectomy in the treatment of postpartum haemorrhage after a normal vaginal delivery. Based on the case report some authors do not recommend myomectomy during cesarean section. The reason is increased vascularity of the gravid uterus, thus myomectomy performed in pregnancy has been reported to be associated with greater risk of haemorrhage and the need for blood transfusion.\textsuperscript{7} But if the myoma is still in the uterus, it also can increase possibility of postpartum hemorrhage.\textsuperscript{9,11-13} The main reason why in this case we performed a cesarean was section because the head of the baby can not engage due to obstruction by the myoma. Some author also reported that if the myoma complicated the labour progress, cesarean section become the only choice.\textsuperscript{5, 14-16}

The case described above illustrate that cesarean myomectomy can be safely performed. This case is one case of the prospective clinical trial conducted between January 1996 and January 2002 in several hospital and maternal hospital in Makassar, there had been 66 cases in which cesarean myomectomy had been performed.\textsuperscript{17} Double circle stitching technique was performed before starting myomectomy to minimize haemorrhage. Other known technique to minimize hemorrhage using vasopressin injection or using penrose drain or catheters as tourniquets to compress the uterine vasculature.\textsuperscript{7} After cesarean myomectomy retraction of the uterine muscle was enhanced by oxytocin infusion intra- and post-operatively (continued for 24 hours).

Such operation should only be carried out with optimal anaesthetic facilities and by an experienced surgeon who has already had experience in interval myomectomy in non pregnant women, as he may on occasion be confronted by considerable blood loss.

CONCLUSION

With adequate experience and the use of high dose oxytocin infusion (intra- and post-operatively), myomectomy at cesarean section is not as hazardous as many now believe.
REFERENCES