



## Case Report

# Placenta accreta and abnormal uterine activity – a complication of uterine artery embolization for fibroid uterus

Mhaskar Rita<sup>1</sup>, Mhaskar Arun<sup>2</sup>, Ananthamurthy Anuradha<sup>3</sup>, Raina SR<sup>4</sup>

<sup>1</sup>Professor & Head, <sup>2</sup>Professor, <sup>3</sup>Asst. Professor, <sup>4</sup>Postgraduate student

Department of Obstetrics and Gynecology St. John's Medical College, Bangalore 560034.

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### Introduction

Uterine artery embolization (UAE) has been shown to be an effective treatment for symptomatic uterine leiomyoma<sup>1</sup>. There are innate concerns regarding uterine artery embolization in women who may want to become pregnant in the future. However little is published on its effect on fertility and pregnancy. Till date, most centers have advocated a cautious approach in dealing with these patients and have generally advised against uterine artery embolization (UAE) until more is known. We present a woman who had undergone UAE for fibroid uterus one year prior to her pregnancy and had abnormal uterine activity during labor and adherent placenta resulting in cesarean hysterectomy.

### Case report

Mrs. D, 27 years old, P1 L1, presented at 38 weeks of pregnancy. She had undergone UAE one year back for

a 4.1 cm fundal fibroid. She conceived spontaneously 9 months after UAE. Antenatal period was uneventful except for minimal vaginal bleeding in the first trimester.

Routine antenatal investigations were within normal limits except for a persistent fibroid over the right lateral wall of the uterus measuring about 3.3 x 3.4 cm on ultrasonography. At 38 weeks and 4 days, induction of labor was done with two doses of prostaglandin E<sub>1</sub> in view of decreased fetal movements. Labor was accelerated with oxytocin after 24 hours due to irregular and ill sustained uterine contractions. Emergency lower segment cesarean section was undertaken for arrest of cervical dilatation at 5 cm and irregular uterine contractions. She delivered a live baby girl weighing 2.6 kg with apgar 8/10 at 1 minute and 9/10 at 5 minutes.

Intraoperatively lower segment was seen stretched out and the bladder was edematous. Liquor was clear, cord was twice around the left leg and the placenta was morbidly adherent to the anterior wall at mid segment of the uterus. A 5x4 cm fibroid was seen at the right lateral wall of the uterus. Both the tubes and the ovaries were normal. Subsequently she had atonic postpartum hemorrhage unresponsive to all uterotonic agents and bilateral internal iliac artery ligation. Cesarean hysterectomy was performed as a life saving measure. Histopathology of the uterus showed placenta accreta.

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Correspondence :  
Dr. Mhaskar Rita  
Professor and Head  
Department of Obstetrics and Gynecology  
St. John's Medical College,  
Bangalore 560 034.  
Tel. 080-25530494 Email : ritamhaskar@yahoo.com

## **Discussion**

Only 58 pregnancies have been reported in world literature following uterine artery embolization for symptomatic fibroids. A large multicentric trial from Ontario (2005, January) reported abnormal placentation in three cases (12.5%), all being nulliparous and of these one had placenta accreta<sup>2</sup>. They recommended close monitoring of placental status in women who have undergone UAE<sup>2</sup>. However abnormal uterine action has not been reported in any of these studies.

In our patient inspite of a favorable cervix, induction of labor failed because of irregular ill-sustained contractions. Possibly this may be attributed to earlier uterine artery embolization devascularizing the myometrium. The placenta was implanted on the site of earlier embolized fibroid and was possibly adherent due to devascularization of endometrium and myometrium following the UAE leading to deficient decidua.

Denudation of endometrium following embolization has been described by Tropeano et al<sup>3</sup>.

Golberg et al suggested that there may be concerns regarding the contractility of the myometrium of the embolized uterus due to a higher association between leiomyomata and uterine dystocia. However in the Ontario multicenter trial of 555 pregnant women, they

did not come across any patient with abnormal uterine activity<sup>2</sup>.

It has been suggested by Pron et al<sup>2</sup> that diagnostic hysteroscopy should be done following UAE to determine the endometrial integrity in patients contemplating pregnancy<sup>2</sup>.

## **Conclusion**

In women who are undergoing uterine artery embolization and contemplating pregnancy, the possibility of adherent placenta and irregular uterine contractions should be kept in mind.

## **References**

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