

#RSNA14: Interventional Procedure Preserves Uterus in Patients with Placenta Accreta



Results of a new study were presented today at the annual meeting of the Radiological Society of North America (RSNA) on a procedure that can preserve fertility and potentially save the lives of women with a serious pregnancy complication called placenta accreta, a condition in which the placenta abnormally implants in the uterus.

The findings of the study showed that placement of balloons in the main artery of the mother's pelvis prior to a Caesarean section protects against haemorrhage and is safe for both mother and baby.

"Massive obstetric haemorrhage is the number one cause of maternal mortality worldwide and abnormal placental implantation is a major risk factor for this," said Patrick Nicholson, MB, BCh, an interventional radiologist trainee at Cork University Hospital in Cork, Ireland.

At this hospital, patients with abnormal placental implantation are treated by a multidisciplinary team that plans both an elective Caesarean section and prophylactic internal iliac balloon placement under fluoroscopic guidance. Prior to the C-section, an interventional radiologist uses specialised techniques to insert balloons into the two internal iliac arteries in the pelvis that supply the uterus with blood flow.

Dr. Nicholson explains that after the delivery of the baby, the balloons can be inflated to slow down the blood flow to the uterus, thereby enabling the obstetrician to gain control of the haemorrhage.

The study evaluated patients with abnormal placental implantation who received prophylactic internal iliac balloon placement since 2009. Over a 44-month period, the hospital treated 21 patients (mean age 35) who underwent balloon placement immediately followed by a C-section.

Arterial balloons were inflated in 13 of the 21 deliveries and deflated and removed when they were no longer needed. The interventional radiology procedure was a technical success in 100 percent of the cases. Only two of the patients required a hysterectomy. Dr. Nicholson believes the number would have been higher without the balloons. There were no maternal or foetal complications resulting from the interventional procedure.

"We are the first group to report on the foetal outcomes associated with prophylactic internal iliac artery balloon placement," Dr. Nicholson said. "There were no adverse outcomes for the babies as a result of this procedure."

Dr. Nicholson also highlighted that the incidence of abnormal placental implantation has been increasing steadily over recent years. The risks for placenta accreta and its variations tend to increase with a woman's age, previous C-sections and in-vitro fertilisation. He points out that there is a definite need for more research in this field.

"This research highlights the value of interventional radiology in managing this very serious, high-risk condition to control bleeding and maternal and foetal complications," Dr. Nicholson said.

Source: RSNA
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Published on : Wed, 3 Dec 2014