

# **Placental Implantation Abnormalities**

Placental implantation abnormalities can be described by the terms accreta, increta and percreta, which correlate to the depth of penetration into the placental myometrium. These abnormalities begin with a defective decidual layer in the placenta, leading to possible life threatening hemorrhage in the mother postpardum.



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#### Mechanism

#### Placenta Adheres Directly to Myometrium

Placenta-present sticks to Muscle-layer of uterus

Due to a defective decidual layer in the placenta, there is abnormal attachment and separation of the placenta to the myometrium.

#### Placenta Accreta

#### Placenta-present on A-crater

Placenta accreta is a term used to describe the placenta attaching to the myometrium without penetrating it. This is the most common form of placental implantation abnormality.

# Placenta Increta

### Placenta-present In-crater

Placenta increta is a term describing when the placenta penetrates into the myometrium, without passing through it.

#### Placenta Percreta

# Placenta-present Pick-through-crater

Placenta percreta is a term used to describe placental attachment that *perforates* through the myometrium and into the uterine serosa. Serious complications of this can lead to the placenta invading the bladder wall or the rectum.

# Caused by Scar Tissue

## Caused by Scarface

These implantation abnormalities arise because of a defective or absent decidua, which is the epithelial lining in the endometrium. Scar tissue from a previous C-section or uterine procedure can lead to this absence of the decidua.

#### Hemorrhage

#### Hemorrhage-hammer

Due to abnormally deep penetration into the uterus (myometrium), there is massive post-partum hemorrhage which can be life-threatening to the mother.

# Diagnosis



### Ultrasound is First-line, then MRI

First-place Ultrasound soundwaves and M-R-eyes

Ultrasound is usually how abnormal placental implantation is first diagnosed. Once this is discovered, MRI is used to describe the depth of invasion.

### **Treatment**

### **C-section Delivery**

#### C-section

If a placental implantation disorder is discovered, patients are typically scheduled for C-section. This is done to circumvent post-partum hemorrhage which occurs through vaginal birth.

# Artery Ligation or Embolization

Archery-artery Line-gate and Elmo-embolizing

Another treatment option is to ligate or embolize uterine arteries supplying hemorrhage from abnormal placental implantation. It is common to control bleed via embolizing or ligating a uterine artery.