

# *Placenta Increta with Uterus Didelphys Gravidity: Single Hospital Case Report*

Urushadze O.<sup>1</sup>, Kintraia N.<sup>2</sup>, Ezieshvili L.<sup>3</sup>, Metskhvarishvili N.<sup>4</sup>, Rizhvadze M.<sup>5</sup>

<sup>1</sup>Full Professor. Head of Department of Medicine Radiology. TSMU

<sup>2</sup>Full Professor. Head of Department of Obstetrics and Gynecology TSMU

<sup>3</sup>TSMU Department of Medicine Radiology

<sup>4</sup>TSMU Department of Obstetrics and Gynecology

<sup>5</sup>TSMU First University Clinic.



**Resume** – 24 years old primigravida has started antenatal care in the TSMU First University Clinic with previously diagnosed uterus didelphys. Normally progressive pregnancy in a right uterus has been confirmed with gestation age 9 week. Minimal symptom of suprapubic tingling feeling has been started from 28 weeks of gestation, ultrasound has revealed myometrium thinning behind placenta. At 30 week of gestation abnormal placental lacunae and its abnormal Doppler has been revealed. Case followed by weekly checkup of the pregnant woman monitoring general condition of the woman and fetus. Caesarian section has been planned at 36 weeks of gestation as condition of patient was stable. Intraoperatively placenta increta has been confirmed in the upper 2/3 of the right gravid uterus with minimal presence of myometrium in this area. Amputation of the right uterus has been performed without right sided salpingooforectomy. Left uterus has been preserved with left adnexa. Patient with her health neonate has been discharged from the hospital on the 5-th day after caesarian delivery.

**Mots clés** – Radiology, Obstetric, Placenta Increta, Uterus Didelphys.

## I. INTRODUCTION

Placenta accrete spectrum (PAS) is clinically important complication, formally known as morbidly adherent placenta, when placenta does not separate spontaneously and leads to a severe sometimes life threatening postpartum hemorrhage and usually leads to the need of hysterectomy. Morbidly adherent placenta includes three type of adhesion; placenta accrete, increta and percreta [1]

In 2019 systemic review that included 7001 cases of PAS among nearly 5.8 million births. The overall pooled prevalence was 0.17 % [2] this data is higher than in the USA [3,4].

Placenta accrete spectrum is considered as a high risk condition with serious associated morbidities, therefore ACOG and the Society of Maternal Fetal Medicine recommended these patients receive level III or higher care. The general resources needed to be able to attain improved health outcomes in the setting of a known or suspected placenta accrete include planning for delivery with appropriate subspecialists and having access to a blood bank.

Rate of PAS are increasing from 1970's and is associated with the increasing rate of caesarian section [5].

In 2016 study conducted using a National Inpatient Sample Found that the overall rate of PAS in the USA was 1 in 272 for woman who had a birth related hospital discharge diagnosis, which is higher than any other published study [6,7]. Placenta previa is another significant risk factor for PAS and occurs in 3% of woman diagnosed with placenta previa and no previous caesarian section, but this data increases significantly with a number of previous caesarian sections from 11% to 61% [8]. Other f

risk factors include history of any minor or major uterine surgery, uterine malformations, history of manual removal of placenta, pelvic irradiation, endometritis.

Considerations of risk factors other than caesarian section is particularly important for woman in their first ongoing pregnancy. In a retrospective study limited to primiparous woman the relative risk of invasive placentation for those with a history of one or two previous gynecological procedures (suction curettage, D&C) was RR 1.5 and RR 2,7 respectively [9].

One of the most important antenatal diagnostic method is ultrasound done between 18 and 24 weeks of gestation and the accuracy of the diagnose is near to 90%. [10,11,12]. In the second and third trimester diagnose PAS is done by the following sonographic findings: multiply irregular placental lacunae, disruption of bladder line, loss of clear zone, myometrium thinning (< 1mm) abnormal vascularity, abnormal uterine contour, exophytic mass [13,14]. Considering risk factors and diagnostic features of the above mentioned complication can increase a positive maternal and fetal outcome.

### II. CASE DESCRIPTION

24 years old primigravida addressed TSMU First University Clinic for antenatal care at 9 weeks of gestation. Because of 5 years' primary infertility she has been tested for hormonal status and anatomical assessment of the genital organs and uterus didelphys has been diagnosed by ultrasound and hysterosalpingography with one vagina and two cervixes. Pregnancy occurred spontaneously without using any methods of assisted reproductive technologies, since menarche at 13 years old of age patient experienced painful menstruation and periodically took painkillers. Her physical development is normal, secondary sexual characteristics are developed normally, family history is significant as mother of the pregnant woman suffers from diabetes mellitus type 1. Her siblings are healthy. Patient has been assessed for other internal organ malformations without positive results. Surgical history of the woman was not significant. First antenatal visit at 9 weeks of gestation has not revealed any additional abnormalities in a laboratory tests and general examination. Speculum inspection of the cervix has revealed two external os. Protocol based ultrasound examination also has made a diagnose of uterus didelphys. With progressive pregnancy in a right uterus. Pic 1.

Because of history of primary infertility and presence of uterus malformation special schedule of antenatal visits has been arranged. Patient was fully informed about the case, associated risks and alarming symptoms.

Pic 2. With asteryx show up to 45mm thinned myometrium at 11 week of gestation progressive pregnancy and left non pregnant uterus. General condition of the woman was good with no complaint and normal lab results. Pic 3 marked point shows thinned myometrium behind the placental tissue at 18 weeks of gestation with progressive non symptomatic pregnancy. At 28 weeks of gestation woman has presented with periodic suprapubic tingling pain occurring several times a day. At this gestation ultrasound examination irregular shape of placental lacunae and thinned myometrium has been revealed. Antenatal corticosteroids has been initiated.

At 30<sup>th</sup> week of gestation abnormal placental lacunae revealed turbulent blood flow by Doppler regimen. Since 30-th week of gestation patient has been observed weekly for the presence of alarming symptoms, general condition, fetal wellbeing. As the general condition of the patient was stable without symptoms of preterm delivery, bleeding or prelabor membrane rupture, caesarian delivery has been planned for 36 weeks of gestation. Planned caesarian delivery has been performed without complications. During surgery progressive pregnancy with normal fetus occurred in the right uterus with breech presentation. Intraoperatively the upper 2/3-rd of myometrium was practically absent, placenta increta was confirmed without bladder invasion. Pic 4. Right uterus has been amputated after suturing caesarian incision to decrease blood loss. Left uterus with normal adnexa has been left intact together with right adnexa of gravid uterus. Blood loss during surgery approximately 1500-1600 ml. blood transfusion been performed without complication and any side effects. Postoperative period passed without complications, on the 5-th day after surgery woman with her healthy neonate has been discharged from the hospital. Diagnose of placenta increta once again was confirmed by histopathomorphological study.



Pic 1. Two uterus. right with 9 week of pregnancy. Left without pregnancy



Pic 2. Thinned myometrium 45 mm. 11 week of gestation



Pic 3. Thinned myometrium behind placental tissue



Pic 4. Gravid right uterus with thinned practically absent myometrium



Pic 5. Circle shows left nongravid uterus

### III. DISCUSSION

Placenta accrete is much more common than placenta increta and percreta. In a systemic review types and frequencies of abnormal placentation were: placenta accrete 63% [2], placenta increta 15%, placenta percreta 2%. Majority of PAS results from decidua defects rather than placental abnormality [15]. Abnormal decidua formation mostly results from uterine surgery.

In rare cases uterine pathology - bicornuate uterus, adenomiosis, submucous fibroid, myotonic dystrophy may be associated with microscopic endometrial defects that interfere with normal endometrial function and leads to abnormal invasion of chorionic villi [16]. Clinical presentation needs experience and qualified medical staff to recognize or suspect PAS and start assessment of the case with recommended diagnostic methods.

In a systemic review the clinical presentation of PAS was: sudden pelvic pain (suprapubic, abdominal) 41%, vaginal bleeding 25%, both above mentioned symptoms – 7%. In meta-analysis (11 studies 700 pregnancies) woman with pre-delivery diagnosis of PAS had significantly less blood loss and fatal outcome than woman in whom the condition was diagnosed at delivery [17]. Prelabor membrane rupture 7%, bleeding is still the most common symptom. PAS is a common indication of peripartum hysterectomy. In systemic review of 7001 PAS cases hysterectomy was performed in 52.2%, bladder injury rate was 5% [18], other complications like genitourinary fistula, bowel damage, thrombotic event, infection, renal failure occurred in <2% of cases. The most reliable sonographic findings showed in literature was disruption of the interface between bladder and uterine serosa (bladder line), thinning of the myometrium and pathological placental lacunae, last two signs have been observed by

ultrasound examination in our case. Our case is a combination of two rare complications uterine abnormalities uterus didelphys and placenta increta with higher risk of unwanted maternal and fetal outcome. Therefore, finished successfully.

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