

## Diagnosis of Prérapture Pregnancy in the Rudimentary Horn of a Pseudunicornuate Uterus

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### Abstract

Pregnancy in the rudimentary horn of a unicornuate uterus is extremely rare. However, its occurrence is serious and can involve the vital maternal pc; in 80 to 90% of cases, the natural evolution of the rudimentary gravid horn is the rupture, frequently occurring in the 2nd trimester. Its diagnosis is not easy, posed late at the stage of rupture in 50% of cases.

Through our case of pregnancy in a rudimentary horn of pseudunicornuate uterus, we report the seriousness of this ectopic pregnancy, its diagnostic difficulties and its therapeutic implications.

### Introduction

Unicornuate uterus is a congenital uterine malformation with a prevalence of 0.1%-0.4% in the general population (2.17,18,21). The true unicornuate uterus is defined by the presence of a single hemiuterus. The presence of an associated rudimentary horn defines the pseudunicornuate uterus; it is the rudimentary contralateral hemiuterus because of an incomplete development of the corresponding muller duct.

An ectopic pregnancy, in the presence of a cavity and a functional endometrium, can occur in this rudimentary horn.

### Case Report

25-year-old patient with no significant medical and surgical history.

Gestality: 2 parities: 1, a live child delivered vaginally at term. The 2nd pregnancy is without clinical particularity. The patient benefited from her 1st trimester ultrasound having objectified a non-evolving monofetal pregnancy of 12 weeks, ectopic; abdominal or tubal location with absence of peritoneal effusion. The surprise diagnosis of a pregnancy on a rudimentary horn was established by MRI. The patient underwent rudimentary horn resection with ipsilateral salpingectomy.

### Discussion

Unicornuate uterus is extremely rare. it presents 1/76,000 to 1/140,000 of pregnancies [2,7,10,11]. However, its occurrence is serious and may involve the vital maternal pc; its natural evolution is the almost inevitable rupture of the rudimentary hemiuterus in 80-90% occurring frequently in the 2nd trimester [2,3,5,7,12,14]. This implies its early diagnosis at the very beginning of pregnancy allowing its early termination at the pre-rupture stage. However, the diagnosis of this type of ectopic pregnancy is laid in more than 50%



Figure 1: U: uterus, → musculature of rudimentary horn surrounding the gestational sac.

at the rupture stage [12-14] nahum et al analyzed 588 cases of pregnancies on rudimentary horn having been reported in the literature between 1900 and 1999, the diagnosis was made at the rupture stage in 50%; having occurred in 80% before the 3rd trimester [10]. Seema et al reported 10 cases of uterine rupture in a retrospective analysis of 12 pregnancies on rudimentary horn [19]. 3 cases of uterine rupture in the 2nd trimester (20wk, 17wk, 24wk) were reported by Sujata et al in their retrospective analysis of 5 cases of rudimentary horn pregnancy admitted to their hospital between 2001 and 2010 [22].

This diagnostic delay can be justified by the fact that this rare ectopic pregnancy occurs in women whose uterine congenital malformation is not yet known and who have a history of

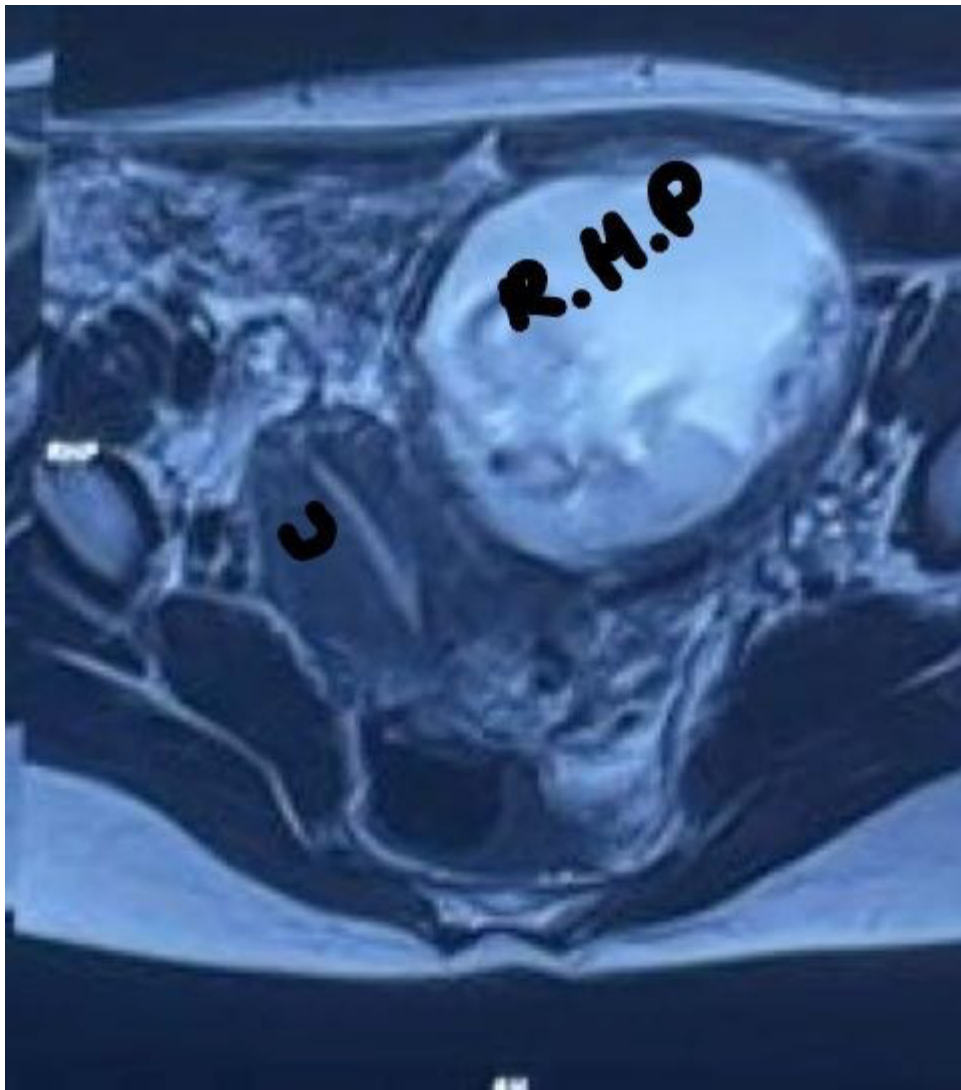


Figure 2: IRM: U: uterus, R.H.P: rudimentary horn pregnancy, myometrial tissue surrounding gestational sac.



Figure 3: IRM: absent visual continuity between the cervical canal and the lumen of the pregnant horn.

normal pregnancies [2,12,13,16]. On ultrasound the pregnancy in a rudimentary horn can simulate a pregnancy of normal intrauterine

location due to the non-visualization of the normal hemiuterus latero-deviated by the gravid horn or take the appearance of a pregnancy in a bicornuate uterus.

pregnancy in a rudimentary horn can also be visualized on ul-

trasound as a latero-uterine pregnancy evoking a cornual, tubal or abdominal pregnancy, however, even if the diagnosis in this case is not established, it is indeed of an ectopic pregnancy systematically indicating a termination of pregnancy and therefore the therapeutic management is done at the pre-rupture stage. this is the case of our patient whose pregnancy was diagnosed as ectopic on ultrasound without suggesting a rudimentary horn pregnancy.





Figure 4: Shows uterus (U) and the left rudimentary horn pregnancy (R. H. P).



Figure 5: Shows the excised rudimentary horn pregnancy with fallopian tube.





*Figure 5: Shows the excise of rudimentary horn with fallopian tube and the fetus with the placenta.*

The sensitivity of ultrasound in the diagnosis of pregnancy on rudimentary horn of a unicornuate uterus is only 30% [8,12,16,17].

Tsafir proposes 3 sonographic criteria of strong suspicion of this type of ectopic pregnancy (19): a) pseudo asymmetric aspect of bicornuate pregnancy b) gestational sac surrounded by a layer of myometrium c) non-continuity of the gravid cavity with the cervical canal. The analysis of the ultrasound aspect of the pregnancy in our case shows the presence of a layer of musculature.

Magnetic resonance imaging, considered the gold standard in the diagnosis of uterine malformations, confirms the diagnosis [8,17,19]. Systematic termination of pregnancy is indi-

cated in this type of ectopic pregnancy to prevent rupture of the rudimentary hemiuterus [8,9,12] even if sporadic cases of pregnancy carried to term are described in the literature [6,10]. management therapy consists of resection of the rudimentary horn with the homolateral fallopian tube.

### **Conclusion**

pregnancy on a rudimentary horn of a pseudo-unicorn uterus is certainly rare but must be well known; any delay in diagnosis can jeopardize the maternal prognosis. Thus, the obstetrician must be very attentive to the 1st obstetric ultrasound so as not to be trapped by this type of ectopic pregnancy.

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