Author's response to reviews

Title: Pregnancy in a unicornuate uterus: a case report.

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Answering Dr Florent Fuchs questions:

1) Women with history of dysmenorrhea from the menarche and/or with infertility and recurrent miscarriage have a high prevalence of congenital anomalies and should be thoroughly investigated by two-Dimensional ultrasound (2D US) as initial screening tool and possibly three-dimensional ultrasound (3D US). It’s important to consider that the ultrasound diagnosis can be missed in inexperienced hands.

Combined hysteroscopy and laparoscopy can be used for a definitive diagnosis. The accuracy and practicality of MRI remains unclear.

2) This management can be considered mandatory for all women with rudimentary horn.

3) Women with unicornuate uterus require particular pregnancy follow up:

According with the current American Congress of Obstetrics and Gynaecology guidelines for management of IUGR, it is reasonable to consider serial growth ultrasound examinations in pregnancies at risk of IUGR.

Sonographic weight estimation appears to be less accurate for fetuses in breech presentation and it is important to be considered since all uterine anomalies increase the chance of fetal malpresentation.

About preterm labour, there are no consistent data that any intervention (including hydration, antibiotics, or tocolytic therapy) can delay delivery in women for longer than 24 to 48 hours once they have presented in preterm labor. For this reason, much attention has focused on preventative strategies. Although several strategies have been proposed the prevention of preterm birth has been largely unsuccessful.

The utility of transvaginal cervix length measurement for assessing the risk of preterm birth has been well documented, with an accepted cutoff value for cervix length of $\leq 25$ mm before 24$^{\text{th}}$ week of gestational age.

The predictive value of a negative test is high (92%); this implies that pregnant women who are found not to have a shortened cervix can be reassured, and unnecessary therapeutic measures can be avoided.
For women with short cervix (<25mm) and particularly for women with a history of prior midtrimester pregnancy losses due to cervical insufficiency, on the contrary, cervical cerclage is the treatment of choice.

-Vaginal progesterone can be helpful but not strictly required:

In a high-profile, randomized, placebo-controlled trial, 250 asymptomatic women with a short cervix (≤ 15 mm) on transvaginal ultrasound at 20 to 25 weeks of gestation were treated with either vaginal progesterone (200 mg each night) or placebo. Progesterone administration significantly reduced the rate of spontaneous preterm birth before 34 weeks. Since that publication, a small secondary analysis and a larger randomized trial have confirmed this observation. In the largest of these studies, 458 asymptomatic women with a singleton pregnancy and a sonographic short cervix (10–20 mm) at 19 to 24 weeks of gestation were randomly allocated to receive vaginal progesterone gel (90 mg) or placebo daily from 20 to 24 weeks until 37 weeks of gestation. Women randomized to receive vaginal progesterone had lower rates of preterm birth than those allocated to placebo at all gestational ages studied: < 35 weeks, < 33 weeks, and < 28 weeks. This translated also into a significant reduction in respiratory distress syndrome, very low birth weight infants, and overall neonatal morbidity and mortality.

Whether progesterone acts by attenuating further cervical shortening is not yet clear.

Accumulating evidence suggests that the myometrial activity associated with preterm labor results primarily from a release of the inhibitory effects of pregnancy on the myometrium rather than an active process mediated through the release of uterine stimulants, and progesterone appears to play a central role in this regard. The role of progesterone in later pregnancy, however, is less clear. Recent data suggest that progesterone may be important in maintaining uterine quiescence in the latter half of pregnancy by limiting the production of stimulatory prostaglandins and inhibiting the expression of contraction-associated protein genes (ion channels, oxytocin and prostaglandin receptors, and gap junctions) within the myometrium.

Actually ACOG recommend progesterone supplementation only for prior spontaneous preterm birth and Cervical shortening (≤ 15 mm prior to 24 weeks).

During our management progesterone wasn’t administered but we can’t exclude it can be usefulness.

Answering Dr Ana Areia questions:

Blood tests, arterial blood pressure and ultrasound examinations were regularly performed as for a pregnancy in a normal uterus.

Blood exams and arterial blood pressure always resulted in normal ranges.

Obstetric ultrasound examinations of the first and second trimester of pregnancy showed a normal insertion of the placenta, normal Amniotic Fluid Index (AFI), normal fetus growth and bleech presentation.

“Cervix length at 20 weeks of 34mm” meant “At 20 weeks pregnant the cervix length was 34 mm”.

Tocolitic therapy consisted in Ritodrine 5 mg twice a day.

Ritodrine works relaxing the smooth muscle fibres by stimulating the beta receptors present on the cell membrane.