

The' NUB' of the matter

Hypothesis Brosens et al.

Early-onset endometriosis could be explained by a combination of functional plugging of the fetal endocervical canal and the possible secretory activity of the endometrium immediately after birth because of the withdrawal of placental hormones. A retrograde flux of endometrial cells to the peritoneal cavity takes place. These cells may remain dormant till the onset of ovarian activity.

What support the hypothesis?

- early onset endometriosis (pre-menarchal endometriosis) exists
- there is some evidence of occult (25-65%) and overt (4.7-5.3%) vaginal bleeding in female neonates (NUB)
- fetal endometrium shows secretory changes after 34 weeks of gestation with peak at birth
- plugging of the fetal cervical canal has been described

What are the missing points?

- studies demonstrating neonatal bleeding are scarce and old, and frequencies are divergent. Investigational methods to detect NUB are not validated.
- does neonatal vaginal bleeding contains endometrial(stem) cells?
- is cytology of neonatal vaginal bleeding similar to that of menstrual blood?
- plugging of the neonatal cervical canal has not yet been clearly demonstrated
- is there really fluid in the neonatal peritoneal cavity ?

Interventions to answer these questions

methods- feasibility- investigators-patients and parents- costs

intervention	timing	number	investigator	patient/parents	costs	comments
clinical inspection	day 3-5	300	pediatrician	ok	time pediatrician	subjective: probably not useful
vaginoscopy	day 3-5	300	obgyn	informed consent: probably wont work	time investigator	not objectified

vaginal flushing and aspiration	day 3-5	300	pediatrician or ASO Obgyn	informed consent parents: probably difficult	catheters-lab- time investigator	which test to detect blood or better, cytologic examination by pathologist for endometrial cells?
abdominal ultrasound	day 3-5	same 300	ASO obgyn	informed consent : probably feasible	time ASO	predefined criteria: .cervix .uterine length .uterine thickness .peritoneal cavity(fluid)

An exploratory multidisciplinary consultation will be scheduled with all actors in September. Where feasible, an estimate of costs has to be made as well as an application form for the Ethics Committee of the hospital.