

Endocrine Conference

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Uterine anomalies

A. Embryogenesis

1. Fallopian tubes, uterus, and upper portion of the vagina are created by fusion of the mullerian ducts by the 10 th week of gestation
2. Endometrium is derived from the mucosal lining of the fused mullerian ducts
3. Fusion begins in the midline and extends caudally and cephalad
4. Formation of the uterine cavity begins at the lower pole and extends cephalad

B. Types

1. Unicornuate uterus
 - failure of the development of one mullerian duct
 - a rudimentary horn may be present
2. Uterine didelphys
 - lack of fusion of the two mullerian ducts
 - duplication of corpus/cervix
3. Bicornuate uterus
 - partial lack of fusion of the two mullerian ducts
 - produces a single cervix
4. Septate uterus
 - partial lack of resorption of the midline septation between the two mullerian ducts
 - a total failure in resorption can leave a longitudinal vaginal septum
5. DES uterus

C. Diagnosis

1. Often identified during routine pelvic examination, work up for reproductive failure, malpresentation of a fetus during delivery, unexplained preterm labor or recurrent fetal loss
2. Incidence- 1 to5 per 1000 women

D. Diagnostic tools

1. Ultrasound
 - TV US often will be the only tool needed to diagnose a uterine anomaly
 - Scan the transverse plane to determine whether a woman has a septate uterus or a bicornuate uterus

- Septate uterus shows a functional separation of the endometrial stripe, with the muscular and connective tissue of the uterus interposed between the 2 hemiuterine cavities
- Bicornuate uterus shows an endometrial stripe without a homogenous intercavitary portion of the uterus present

2. MRI

- T1-weighted images provide a general picture of the uterus and other pelvic structures
- T2-weighted images can delineate the specific zones of the uterus (endometrium, myometrium, endocervix and the entire cervical anatomy)
- MRI can virtually always distinguish between the bicornuate or didelphic uterus and the septate uterus
- Use as last resort due to cost, attempt US first

3. HSG

- If the ultrasound suggest a uterine anomaly HSG can be used to confirm the diagnosis
- If the woman has a single cervix, the radiopaque contrast will allow the clinician to see 2 separate and distinct hemiuterine cavities

4. Laparoscopy

- helpful but only allows the clinician to see the intraperitoneal anatomy
- Costly

