

RECURRENT PREGNANCY LOSS EVALUATION

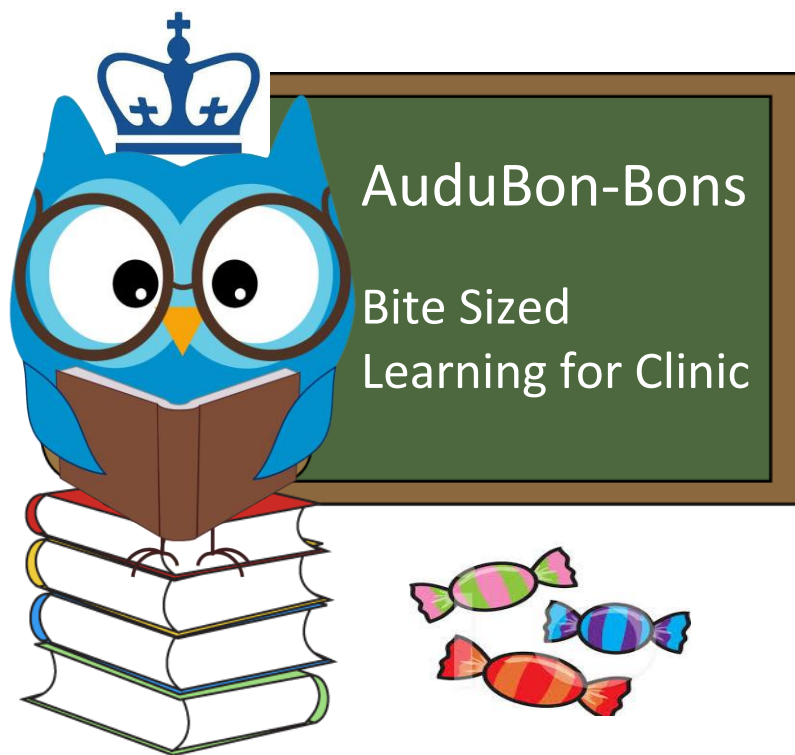
Week 81

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With SDH & .phrase slides by Chloé Altchek, MS4

Reading Assignment:

Branch, D. Ware, and Robert M. Silver. “Practical Work-up and Management of Recurrent Pregnancy Loss for the Front-Line Clinician.” *Clinical Obstetrics and Gynecology*, vol. 59, no. 3, 2016, pp. 535–538.



LEARNING OBJECTIVES



- To be able to identify patients who warrant evaluation for recurrent pregnancy loss
- To understand the differential diagnosis for recurrent pregnancy loss
- To perform an evaluation for a patient with recurrent pregnancy loss



CASE VIGNETTE

- Ms. Villanova, a 29yo G3P0030 woman presents as a new patient desiring an answer for why she had three miscarriages. She is nervous to attempt to conceive for fear of another miscarriage.



FOCUSED HISTORY

What elements of the patient's history are most relevant?

- **PMH:** Denies
- **PSH:** D&C x3 for MAB
- **POBH:** History of three first trimester SAB, all confirmed IUP on ultrasound. D&C x3. No additional assessments
- **PGYNH:** Regular menses Q28 days lasting 5 days. Denies history of STIs or abnormal paps. Up to date on pap. Last STI screening 6 months ago. Sexually active with mutually monogamous male partner for 5 years
- **MEDS:** Prenatal vitamin
- **ALL:** NKDA
- **FH:** Denies family history of miscarriage, chromosomal anomalies, congenital issues, VTE, DM, thyroid disease
- **SH:** Lives with husband. Denies tob, drug, etoh use. Denies caffeine. Exercises regularly. Denies IPV. Works as a preschool teacher. **Feeling more anxious since having multiple miscarriages.** Accepts blood products

PERTINENT PHYSICAL EXAM FINDINGS

What elements of the patient's physical exam are most relevant?

- **General:** Well appearing woman, VSS
- **Skin:** No acanthosis nigricans
- **Vulva:** Normal appearing external female genitalia. No lesions
- **Vagina:** Normal appearing mucosa. No abnormal discharge.
- **Cervix:** No lesions. No CMT
- **Uterus:** NT. Anteverted. Not enlarged
- **Adnexae:** NT. No masses palpable

RECURRENT PREGNANCY LOSS

What percentage of clinically recognized pregnancies end in miscarriage?

- 15.0%

What is the definition of recurrent pregnancy loss?

- **Three or more** pregnancy losses before 20 weeks gestation
- Some clinicians will initiate evaluation after two pregnancy losses

What percentage of couples are affected by recurrent pregnancy loss?

- 0.4-2.0%

What are potential etiologies for recurrent pregnancy loss?

- Anatomical, immunological, chromosomal, endocrinologic, infectious, thrombophilic, and environmental
- **The majority of cases are still idiopathic**



EVALUATION OF RECURRENT PREGNANCY LOSS

What is the first step in the office?

History and Physical Examination

- **History**

- Description of gestational age and characteristics of all pregnancies
- Menstrual history
- Risk factors for uterine adhesions
- Personal or family history of congenital or karyotypic abnormalities
- Exposure to environmental toxins
- Concern for thrombophilias

- **Physical Examination**

- Assess signs of endocrinopathy and pelvic organ abnormalities



EVALUATION OF RECURRENT PREGNANCY LOSS

What are other potential components of the evaluation of RPL?

- Uterine assessment
- Karyotype
- Thyroid function
- Antiphospholipid Antibody Syndrome assessment



EVALUATION OF RECURRENT PREGNANCY LOSS

What options can you offer your patient for **uterine assessment**?

- **Sonohysterography**
- **Hysterosalpingography**
 - What is a disadvantage compared to sonohysterogram?
 - Does not evaluate the outer contour of the uterus, so cannot differentiate between a septate and a bicornuate uterus
- **Hysteroscopy**
 - Also does not evaluate the outer contour of the uterus, so cannot differentiate between a septate and a bicornuate uterus
 - What is an advantage of hysteroscopy?
 - Can treat intrauterine lesions during the procedure



EVALUATION OF RECURRENT PREGNANCY LOSS

What tests can you offer your patient to evaluate for **karyotype**?

- **POC and parental peripheral blood assessment**
- Prevalence of major chromosomal abnormalities in patients with RPL is **2.9%**
 - 5-6 times higher than the general adult population
 - 1/2 balanced reciprocal translocations
 - 1/4 Robertsonian translocations
 - 1/10 sex chromosome mosaicisms in females
 - Remainder are inversions or other sporadic abnormalities



EVALUATION OF RECURRENT PREGNANCY LOSS

How would you counsel your patient regarding **thyroid function**?

- Asymptomatic hypothyroidism can increase the risk of RPL
- There is an increased risk of miscarriage in women with subclinical hypothyroidism and euthyroid women with thyroid peroxidase antibodies



EVALUATION OF RECURRENT PREGNANCY LOSS

What tests can you offer your patient to evaluate for Antiphospholipid Antibody Syndrome?

- Lupus anticoagulant
- Anticardiolipin immunoglobulin IgG and IgM
- Anti β 2 glycoprotein 1 IgG and IgM

Does a positive result make the diagnosis?

- Only repeated positive results performed 12 or more weeks apart make the diagnosis of APLS



SOCIAL DETERMINANTS OF HEALTH

Pregnancy loss in same-sex couples:

In contrast with heterosexuals whose unintended pregnancy rates hover around 50%, 98% of same-sex pregnancies are planned

The 'typical' process of becoming pregnant for same-sex couples is similar to the 'atypical' experience of heterosexual women who experience infertility

For same-sex couples, more resources (psychological, interpersonal and material) are invested in achieving pregnancy, and thus the subsequent experience of pregnancy loss is amplified

In health care accessed surrounding the pregnancy, heterosexism occurs at every step

- Don't make assumptions about sexual orientation
- Acknowledge and include same-sex partners in the conversation
- Make sure that the language about gender of partners on clinic forms is neutral

"The voices of single or lesbian mothers and nontraditional couples are nowhere to be found in the research literature ... [this] must be addressed so that 'women's responses' to pregnancy loss are not conflated with 'married heterosexual women's responses to pregnancy loss.'" (Cosgrove, 2004)



EPIC .PHRASE

BBONRecurrentPregLoss

Description: Recurrent pregnancy loss workup and counseling

Pt with recurrent pregnancy loss comes in for evaluation. A detailed history was taken including characteristics of all pregnancies, menstrual history, risk factors for uterine adhesions, personal or family history of congenital or karyotypic abnormalities, exposure to environmental toxins, and risk factors for thrombophilia. A physical exam was performed including an assessment for endocrinopathy and pelvic organ abnormalities. Based on patient's history and risk factors, further evaluations including uterine assessment, karyotype analysis, thyroid function panel, and APLS assessment were discussed.

Given concern for uterine abnormality/lesion, pt was counseled on the advantage of the various methods of uterine assessment, including sonohysterography (evaluates outer contour, thus can differentiate between septate and bicornate uterus), hysterosalpingography, and hysteroscopy (can treat intrauterine lesions during the procedure). The plan is to proceed with *

Given concern for genetic abnormality, pt was counseled on the various methods of karyotype analysis including POC and parental peripheral blood assessment. The plan is to proceed with

*** Given the possibility of thyroid abnormality, the pt was counseled on the increased risk of miscarriage associated with asymptomatic hypothyroidism or thyroid peroxidase antibodies. The plan is to proceed with thyroid function panel and labs for thyroid antibodies.

*** Given the possibility of APLS, the pt was counseled on the options for testing for lupus anticoagulant including labs for anticardiolipin immunoglobulin IgG and IgM, and anti β 2 glycoprotein 1 IgG and IgM. The plan is to test now and again in 12+ weeks.



CODING AND BILLING

ICD10 Code

- N96.9
 - Recurrent pregnancy loss without current pregnancy
- 026.20
 - Pregnancy care for patient with recurrent pregnancy loss, unspecified trimester



EVIDENCE

- Branch, D. Ware, and Robert M. Silver. “Practical Work-up and Management of Recurrent Pregnancy Loss for the Front-Line Clinician.” *Clinical Obstetrics and Gynecology*, vol. 59, no. 3, 2016, pp. 535–538.
- Early pregnancy loss. ACOG Practice Bulletin No. 200. American College of Obstetricians and Gynecologists. *Obstet Gynecol* 2018;132:e197–207.
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- Tulandi, Togas, and Haya M Al-Fozan. “Evaluation of Couples with Recurrent Pregnancy Loss.” *Up to Date*. October 21, 2019.
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