30-year-old female at 7 months gestation presenting with new right breast mass.
Ms. CC is a 30-year-old female at 7 months gestation presenting with a new right breast mass. She first noticed the mass two weeks ago. She denies pain, redness, breast swelling or nipple discharge. She has no family history of breast cancer.

Physical examination demonstrates an oblong mobile palpable mass.
Imaging studies obtained

- Targeted ultrasound of the right breast
Right breast targeted ultrasound

Demonstrated a 3.2 x 1.8 x 4.1 cm partially circumscribed, oval/macrolobulated, heterogeneously hypoechoic mass.

BIRADS 4A: Suspicious. Low suspicion for malignancy. Biopsy should be performed in the absence of clinical contraindication.
Ultrasound-guided core needle biopsy

Using ultrasound guidance, aseptic technique, and 1% lidocaine as the local anesthetic, the mass of concern was sampled 3 times with a 14-gauge Achieve biopsy needle.
Pathology results and patient outcome

* Lactational hyperplasia
* No atypia and no in situ or invasive carcinoma identified
* Patient reassured regarding benign etiology and clinical follow-up recommended
Alterations in circulating serum estrogen, progesterone, and prolactin levels during pregnancy and lactation lead to increased breast size, firmness, and nodularity.

These hormonal alterations also result in changes in the histologic appearance of normal breast parenchyma, causing progressive enlargement of the lobules with increasing luminal distension.

“Lactational hyperplasia” refers to these normal physiologic changes.
Hormonal changes during pregnancy can also lead to the development of a **lactating adenoma**

- Benign stromal tumor
- Seen primarily during the third trimester of pregnancy and lactation, but may also be observed during the first and second trimesters
- Typically present similarly to fibroadenomas: painless, soft, mobile, masses
- May also infarct and present as firm, tender mass
Discussion: Breast Changes in the Pregnant/Lactating Patient (cont)

* **Lactating adenoma**

Example of a lactating adenoma in a patient at 8 months gestation presenting with a newly palpable mass. Well-circumscribed, oval mass containing one calcification.

- Appears on ultrasound as a hypoechoic, parallel, oval or lobulated mass
- Mimics a fibroadenoma
- May be multiple and bilateral
- Often displays posterior acoustic enhancement due to high amount of secretions
- Tend to regress following cessation of breastfeeding