

# Ultrasound and Assessment of Ovarian Cancer Risk

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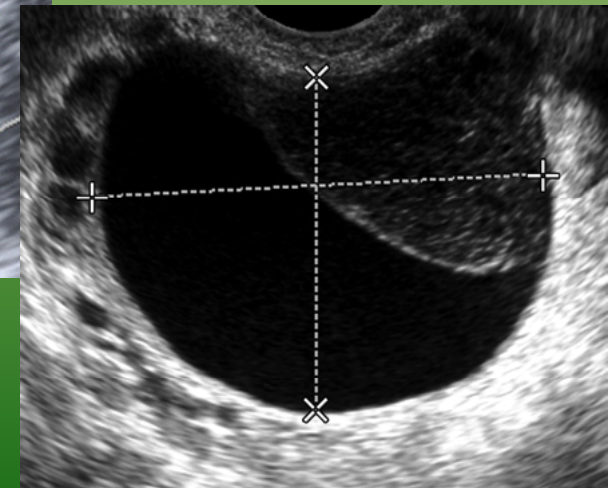
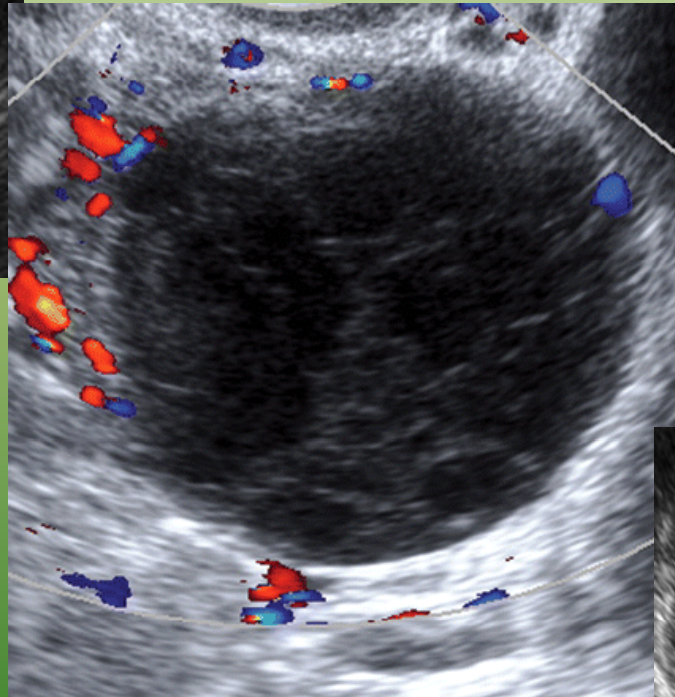
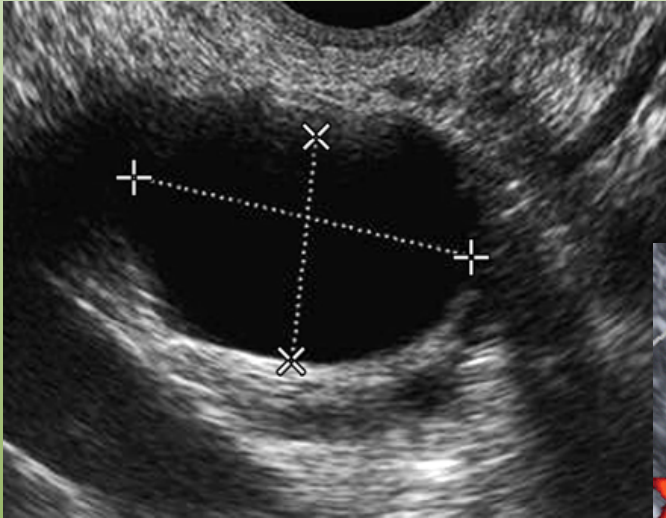
Received August 31, 2009; accepted after revision November 17, 2009.

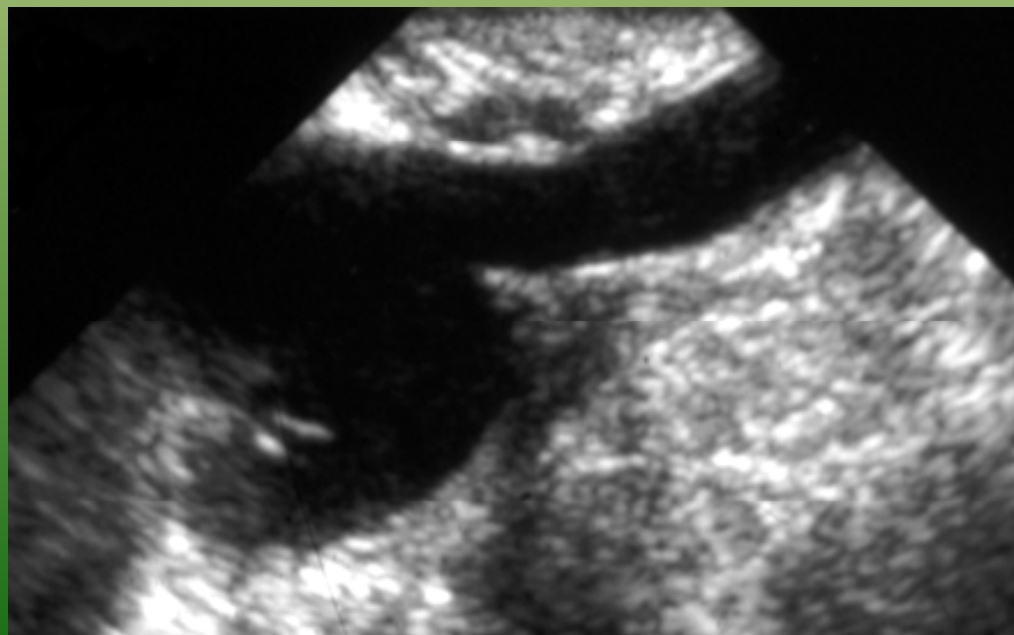
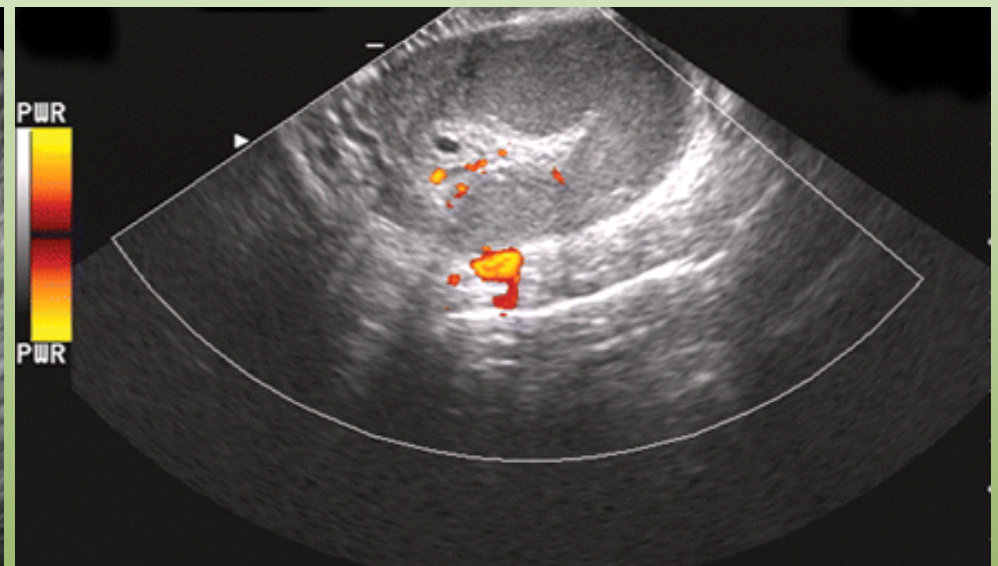
# Ultrasound Characteristics of Ovarian and Adnexal Masses

## Size

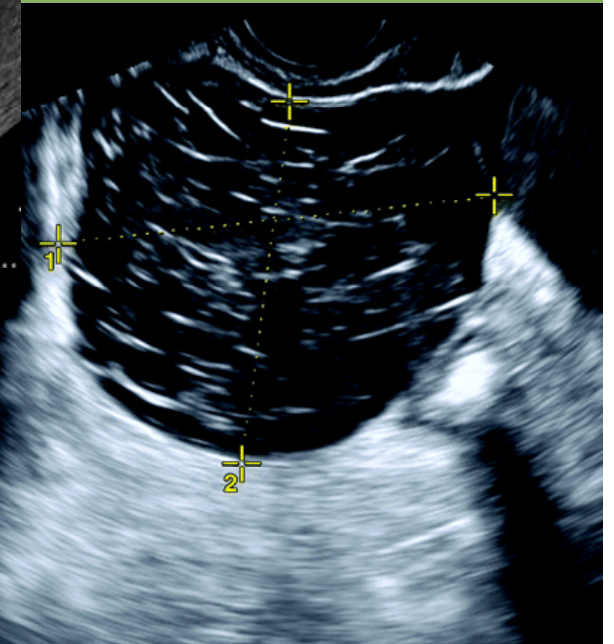
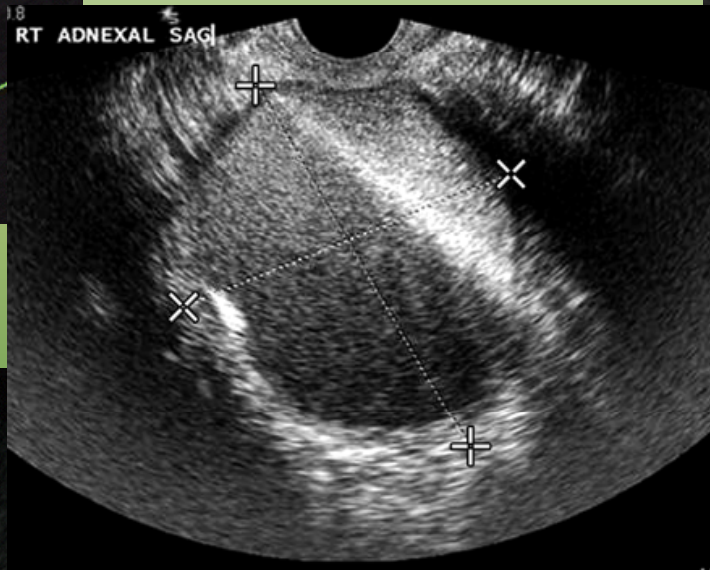
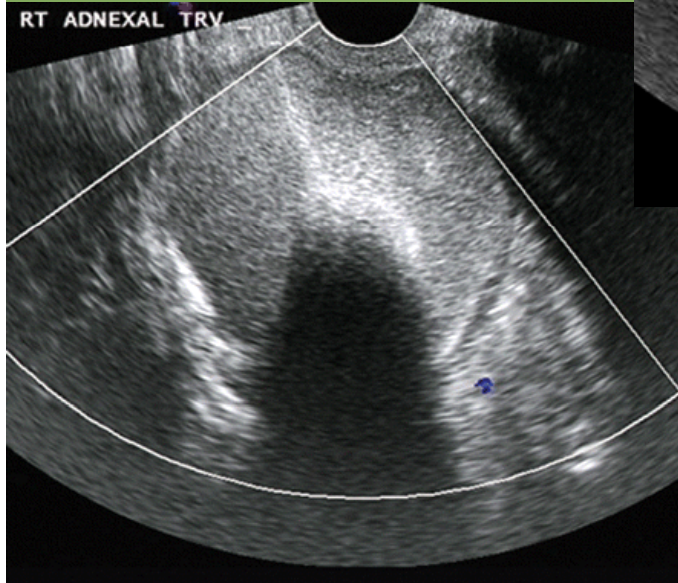
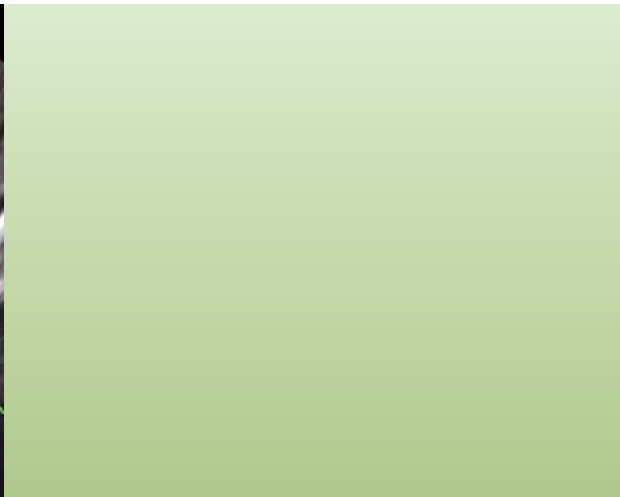
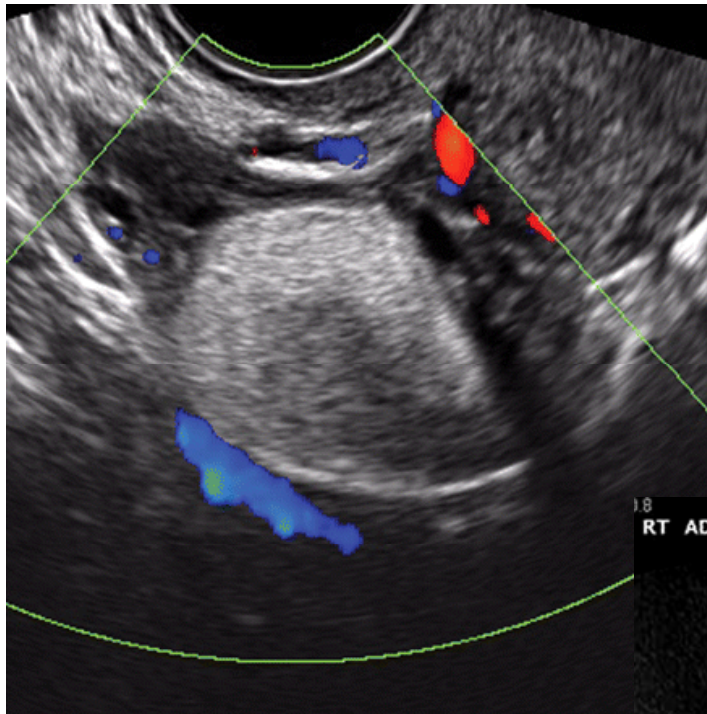
An early study in postmenopausal women found that tumors exceeding 10 cm were significantly more likely to be associated with malignancy.

# Morphologic Characteristics

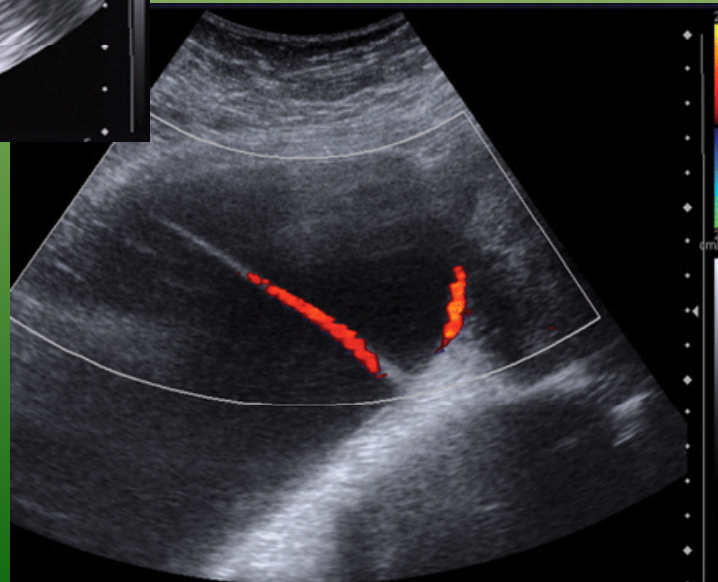
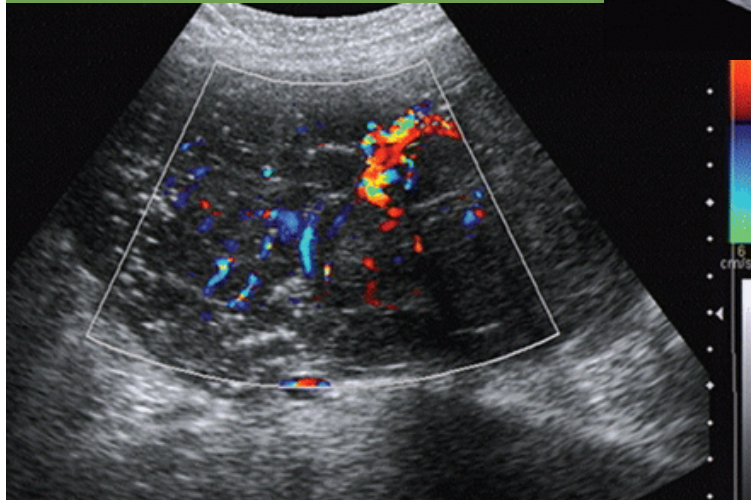
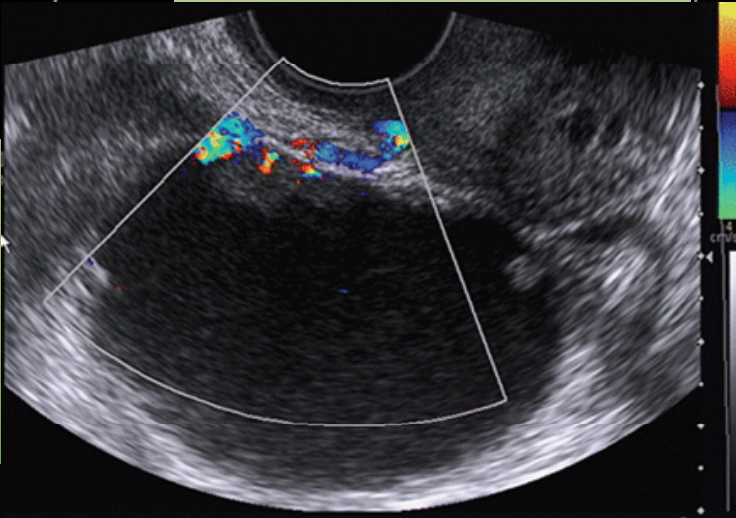
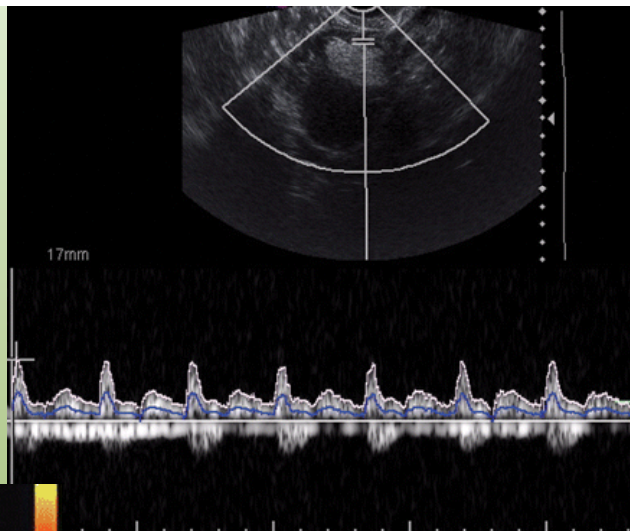
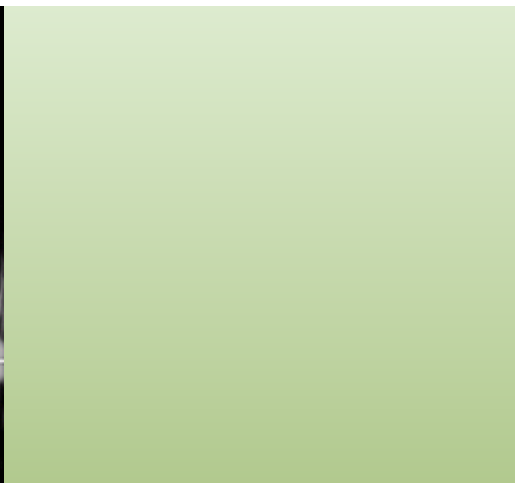
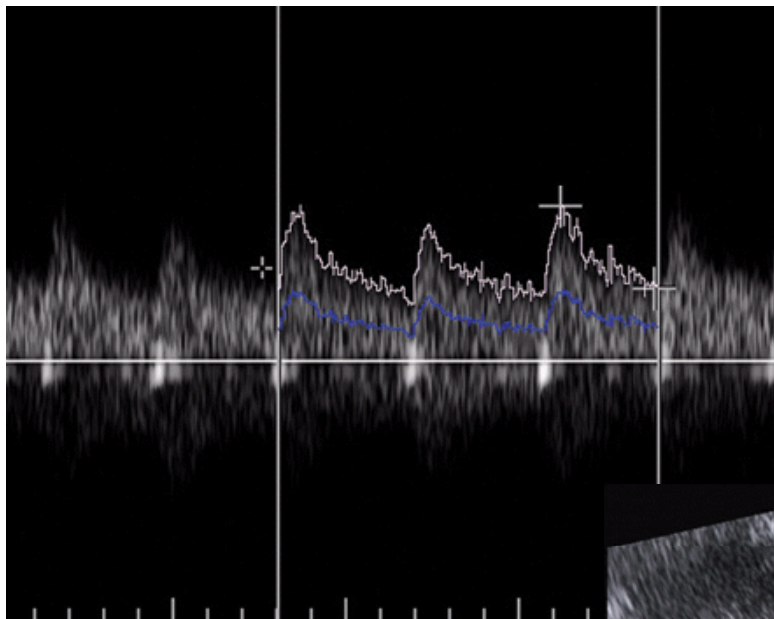


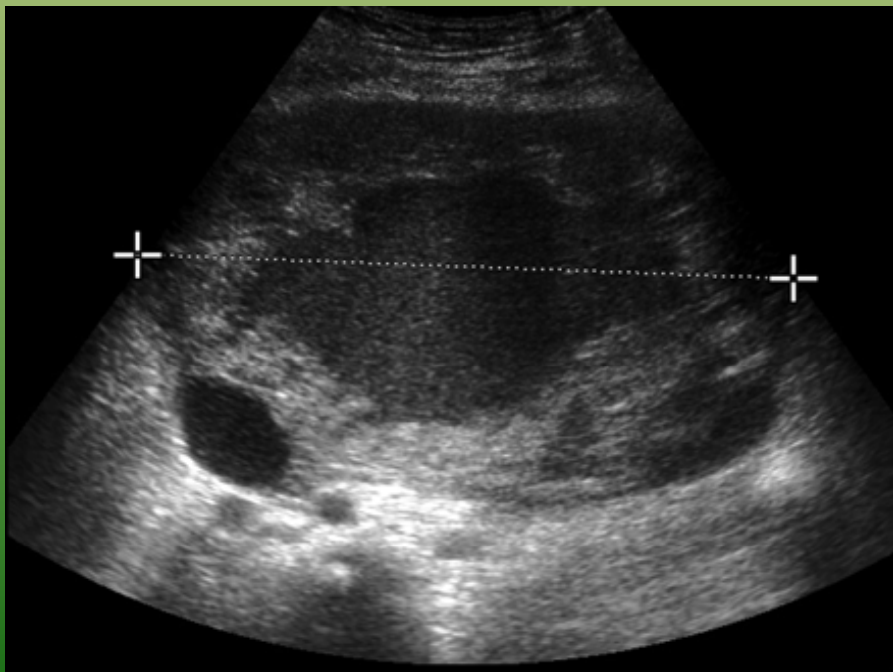
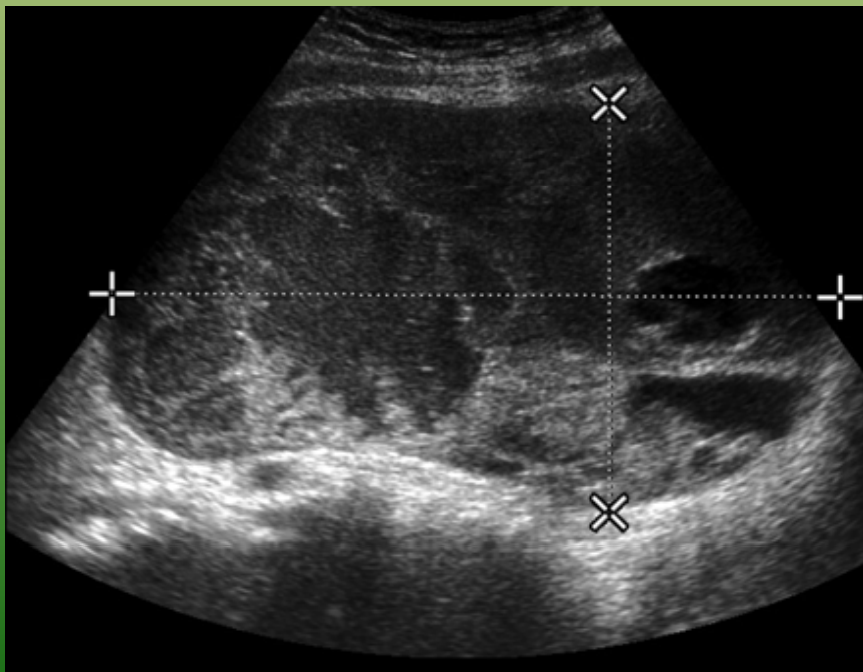
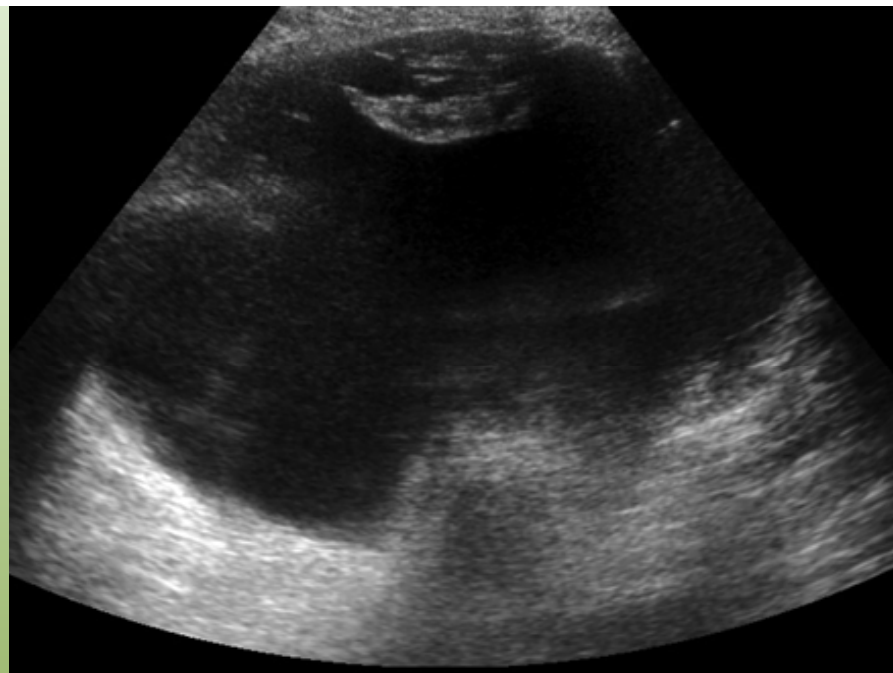
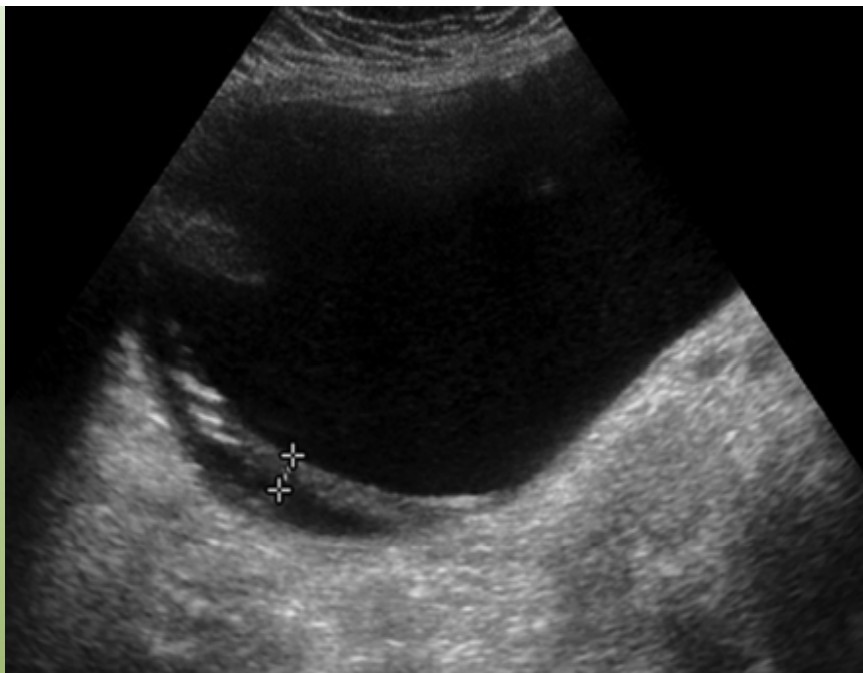




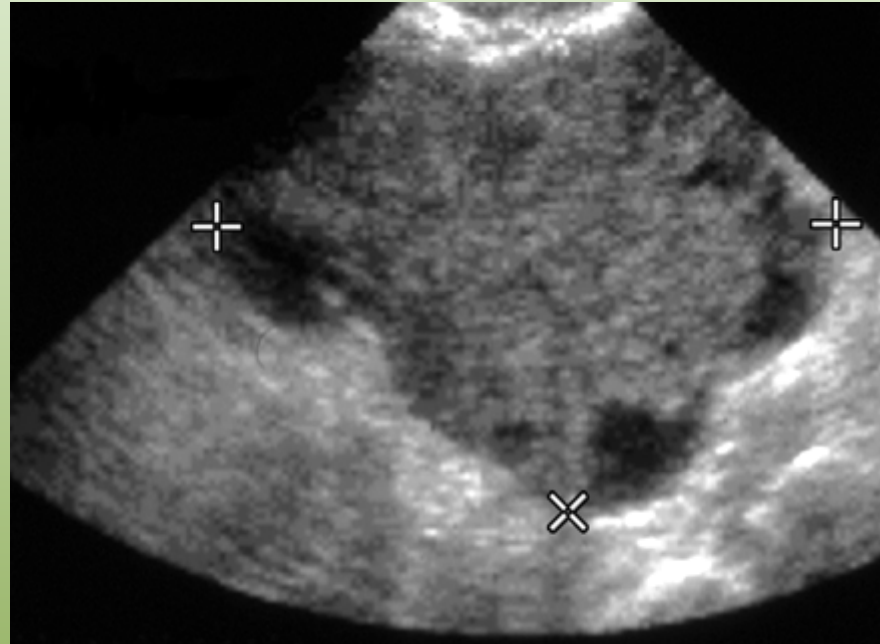














<b>Patient age (years)</b>	<input type="text" value="56"/>				
<b>Ovarian volume</b>	height (cm) <input type="text" value="6.6"/>	width (cm) <input type="text" value="7.1"/>	length (cm) <input type="text" value="6.8"/>		
<b>Sassone Morphology scale<sup>2</sup></b>	<input type="checkbox"/> 1 <input type="checkbox"/> smooth <input type="checkbox"/> 2 <input type="checkbox"/> irregularities $\leq 3$ mm <input checked="" type="checkbox"/> 3 <input checked="" type="checkbox"/> papillaries $> 3$ mm <input type="checkbox"/> 4 <input type="checkbox"/> not applicable, mostly solid <input type="checkbox"/> 5 -	<b>Inner Wall Structure</b> <input type="checkbox"/> thin, $\leq 3$ mm <input checked="" type="checkbox"/> thick, $> 3$ mm <input type="checkbox"/> not applicable, mostly solid - -	<b>Wall Thickness</b> <input type="checkbox"/> thin, $\leq 3$ mm <input checked="" type="checkbox"/> thick, $> 3$ mm <input checked="" type="checkbox"/> not applicable, mostly solid - -	<b>Septa</b> <input type="checkbox"/> none <input type="checkbox"/> thin, $\leq 3$ mm <input checked="" type="checkbox"/> thick, $> 3$ mm - -	<b>Echogenicity</b> <input type="checkbox"/> sonolucent <input type="checkbox"/> low echogenicity <input type="checkbox"/> low echogenicity with echogenic core <input checked="" type="checkbox"/> mixed echogenicity <input type="checkbox"/> high echogenicity
<b>Pulsatility Index</b>	pulsatility index <input type="text" value=".75"/> <b>OR</b> systolic peak velocity <input type="text"/> end-diastolic velocity <input type="text"/> time-average max velocity <input type="text"/> <b>OR</b> <input type="checkbox"/> avascular (pulsatility index of 3.3 will be used which is 1 SD)				
<b>Vessel Location</b>	<input type="checkbox"/> peripheral <input type="checkbox"/> central <input checked="" type="checkbox"/> septal <input type="checkbox"/> avascular (must be used if PI is avascular)				
<b>Intense echoes</b>	<input type="checkbox"/>				
<input type="button" value="Submit"/>					

Retrospectively derived data from author's patient population.

<sup>1</sup>Twickler DM, et.al. (1999), "The Ovarian Tumor Index Predicts Risk for Malignancy", Cancer, 86:2280-90.

<sup>2</sup>Sassone AM, et.al. (1991), "Transvaginal Sonographic Characterization of Ovarian Disease: Evaluation of a New Scoring System to Predict Ovarian Malignancy", Obstet Gynecol 78:70-6.

\*Available on line at [utsouthwestern.edu/oti](http://utsouthwestern.edu/oti)

# **Clinical Decision Making Using Ovarian Cancer Risk Assessment**

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Received September 15, 2009; accepted after revision November 16, 2009.

# CA-125 Level

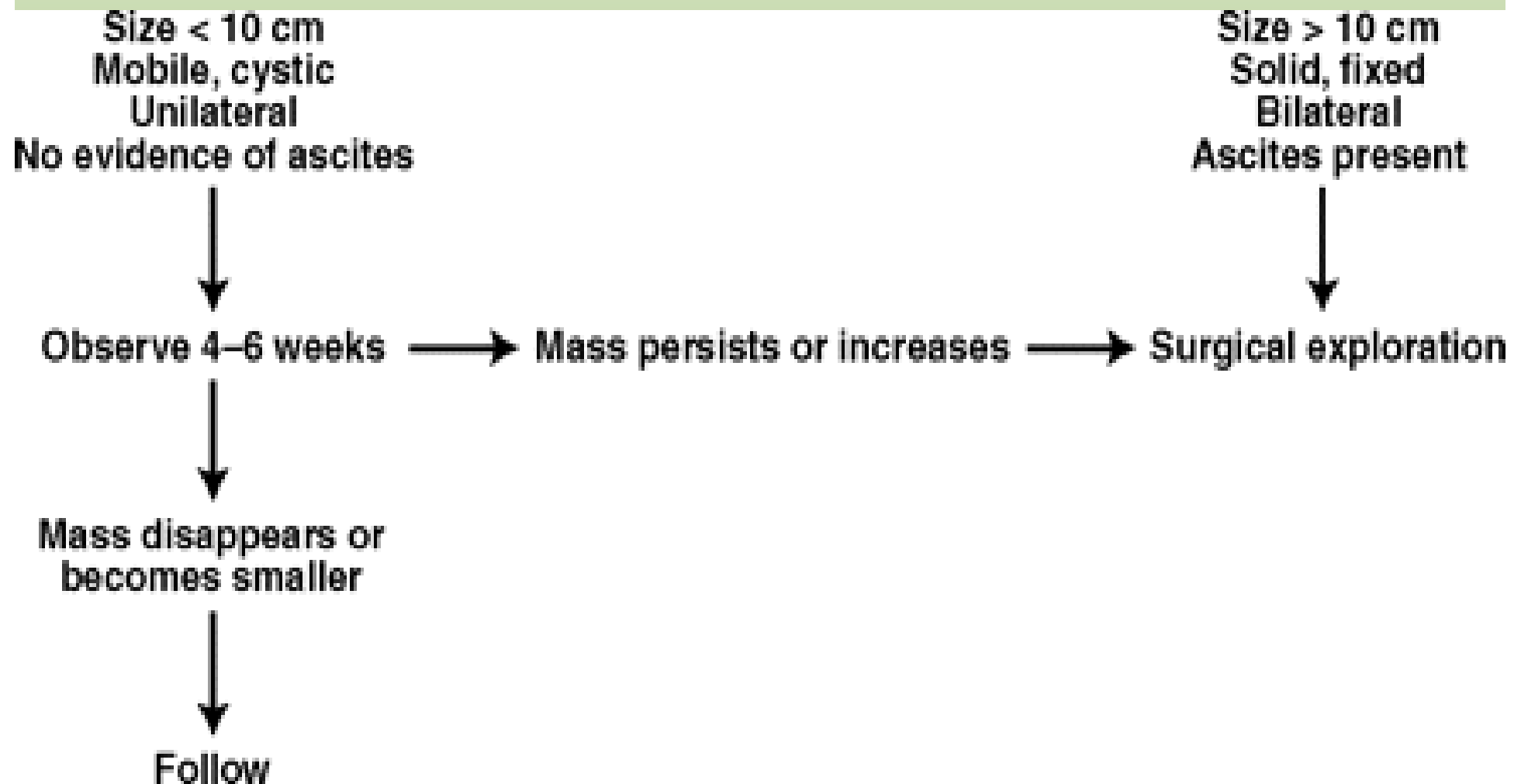
...one study showed that a preoperative serum CA-125 value greater than 65 U/mL predicted ovarian cancer in 98% of postmenopausal women.

...the **risk of malignancy index (RMI)** was the best predictor of malignancy.

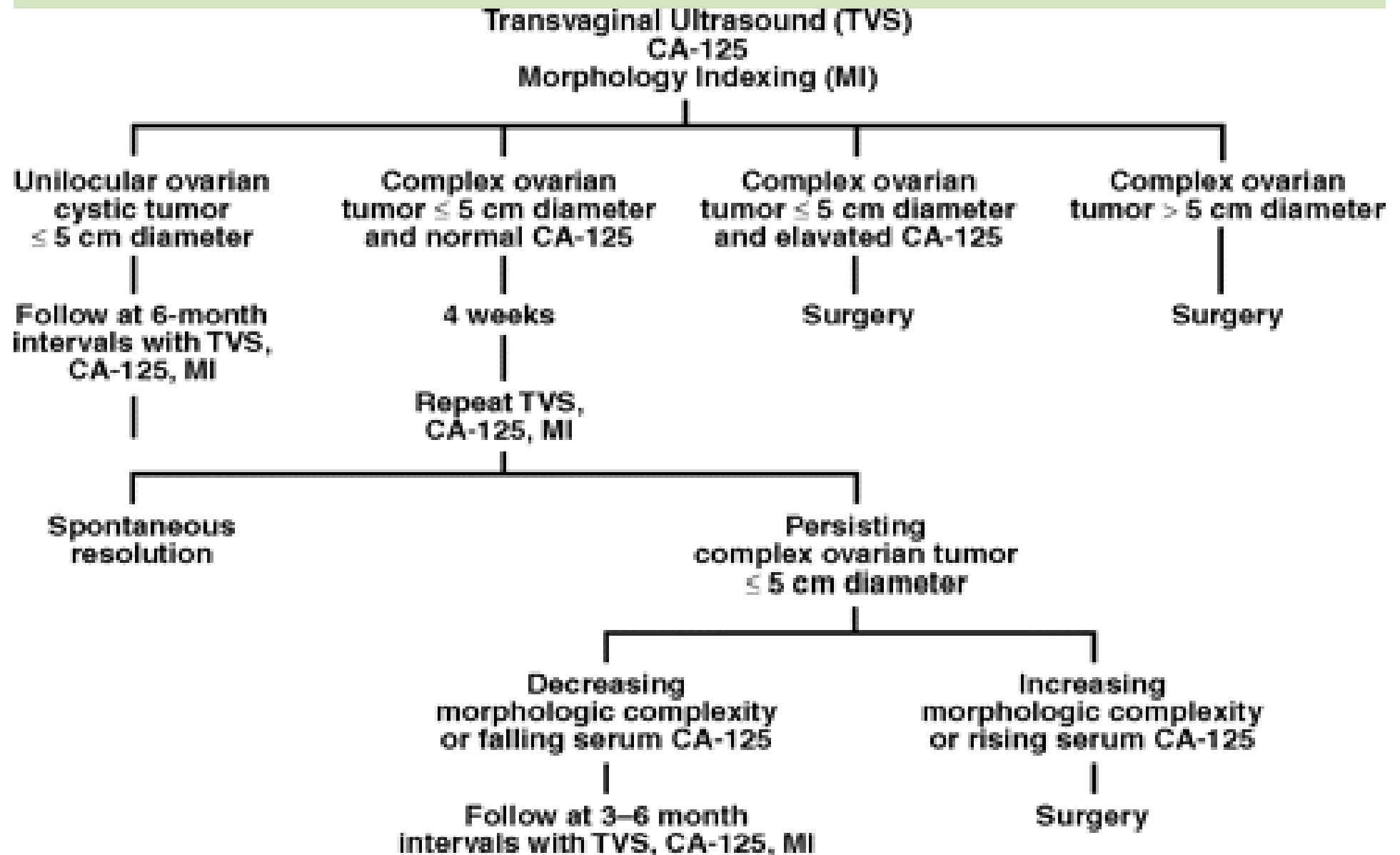
**RMI = CA-125 level x ultrasound result** (0 = simple mass, 1 = semicomplex mass, 3 = complex mass) **x menopausal state** (1 = premenopausal, 3 = postmenopausal)

When pooling the studies that evaluated the RMI, a cutoff value of 200 had a sensitivity of 78% and specificity of 87% for detecting ovarian cancer.





Pré-ménopausa



Pós-menopausa