

Does pregnancy alter the diagnostic performance of clinical and sonographic markers for adnexal torsion?

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Objectives: We aimed to compare the sensitivity, specificity and overall accuracy of clinical and sonographic markers for adnexal torsion in pregnant versus non-pregnant women.

Methods: Retrospective observational study of women with suspected adnexal torsion who underwent laparoscopy (2014-2024). The study population included 111 women: **39** pregnant and **72** non-pregnant. Preoperative ultrasound images and clinical reports were reviewed for predefined markers. Surgical findings were used as the gold standard for statistic calculations.

Results:		
	Pregnant: 74.3% detection rate 29/39 surgically confirmed	Non-pregnant: 80.5% detection rate 58/72 surgically confirmed
	<i>p = 0.4 (NS) between groups</i>	
	Pregnant (n=39)	Non-pregnant (n=72)
Whirlpool sign	Sens: 13.8% Spec: 100%	Sens: 31.0% Spec: 92.9%
Ovarian enlargement	Sens: 86.2% Acc: 64.1%	Sens: 93.1% Acc: 77.8%
Physician suspicion	Acc: 63.9%	Acc: 77.5%
Abnormal Doppler flow	Sens: ~50%	Sens: ~50%
Tenderness on probe movement	90.0%	57.1%

Conclusions: Pregnancy significantly reduces sensitivity of some classic sonographic markers, particularly the Whirlpool sign (13.8% vs. 31.0%). Ovarian enlargement remains a useful marker, although its diagnostic accuracy is less reliable during pregnancy (64.1% vs 77.8%). Absence of Unilateral pain demonstrated a 100% NPV in pregnancy, suggesting potential value for ruling out torsion. Preserved Doppler flow cannot exclude torsion (Sens ~50% in both groups). The diagnostic accuracy of physician suspicion is lower in pregnant women (63.9% vs 77.5%), underscoring the challenge of clinical diagnosis during pregnancy.

Key Message: A single 'gold standard' marker is insufficient in pregnancy. A higher index of clinical suspicion and a combination of multiple markers are required for a timely and accurate diagnosis of adnexal torsion during pregnancy.