

Transvaginal ultrasound and diagnostic hysteroscopy in evaluation of intra-cavitary pathology

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INTRODUCTION

Transvaginal ultrasound is the first-line exam in the study of abnormal uterine hemorrhage, with hysterosonography or diagnostic hysteroscopy (HSC) frequently used to clarify ultrasound findings related to intra-cavitary pathology. Namely with regard to endometrial polyps, similar sensitivity and specificity rates are described for the three methods.¹

OBJECTIVE:

- To evaluate the diagnostic capacity of gynecological ultrasound and HSC in gynecological intra-cavitary pathology

MATERIALS AND METHODS:

- Retrospective analysis of the clinical processes of women with resectoscopy performed at the Ambulatory Surgery Unit of our hospital during 2019.
- Evaluation of the diagnostic hypothesis on ultrasound and HSC and comparison with the final anatomopathological result.
- Calculation of sensitivity (SS), specificity (SP), positive and negative predictive value (PPV, NPV) and accuracy (AC) for each method

RESULTS

Table 1: Ultrasound, hysteroscopy and histology findings (n=165)

	Ultrasound	Hysteroscopy*	Histology
Endometrial polyp	92 (55,8%)	134 (85,4%)	114 (69,5%)
Leiomyoma	18 (10,9%)	14 (8,9%)	25 (15,2%)
Endometrial polyp + leiomyoma	-	6 (3,8%)	9 (5,5%)
Endometrial hyperplasia	-	-	8 (4,8%)
No alterations	12 (7,3%)	3 (1,9%)	8 (4,8%)
Endometrioid adenocarcinoma	-	-	1 (0,6%)
Endometrial thickening	43 (26,1%)	-	-

* 8 missing values

Table 2: Diagnostic properties of ultrasound and hysteroscopy

	SS	SP	PPV	NPV	AC
Endometrial polyps					
Ultrasound	60%	63,7%	42,2%	78,2%	62,6%
Hysteroscopy	32,7%	96,2%	80,0%	75,3%	76,0%
Leiomyomas					
Ultrasound	95,7%	50,0%	91,7%	66,6%	89,0%
Hysteroscopy	97,7%	44,0%	90,0%	78,5%	89,0%

- ✓ Of the 165 cases under study, the most frequent AP diagnosis was endometrial polyp in 69.1%, with ultrasound hypothesis in 72 cases and 101 in hysteroscopy.
- ✓ In 43 cases, gynecological ultrasound identified only an endometrial thickening, with the HSC allowed the correct diagnosis in 62.8% of these.

DISCUSSION

In the study sample, hysteroscopy allowed a correct detection of intra-cavitary pathology in a higher percentage of cases compared to ultrasound. With regard to the most common pathologies (endometrial polyps and leiomyomas), the detection rates differed, with ultrasound showing higher sensitivity, but with lower specificity values for polyps and the reverse for leiomyomas.

References:

Salim, S., Won, H., Nesbitt-Hawes, E., Campbell, N., & Abbott, J. (2011). Diagnosis and management of endometrial polyps: a critical review of the literature. *Journal of minimally invasive gynecology*, 18(5), 569-581.