

# Hydrosonography for screening intracavitary anomalies

Hammami A, Zeghal D, Slimani S, Kdous S, Kehila M, Mahjoub S, Ben Hmid R, Channoufi MB  
Center Of Gynecology And Obstetrics if Tunis (CMNT), Department "C", Tunisia

## Introduction

The gold standard in the diagnosis of diseases of the uterine cavity (through infertility and menometrorragia) are transabdominal ultrasound (TAU) and hysteroscopy (HSC).

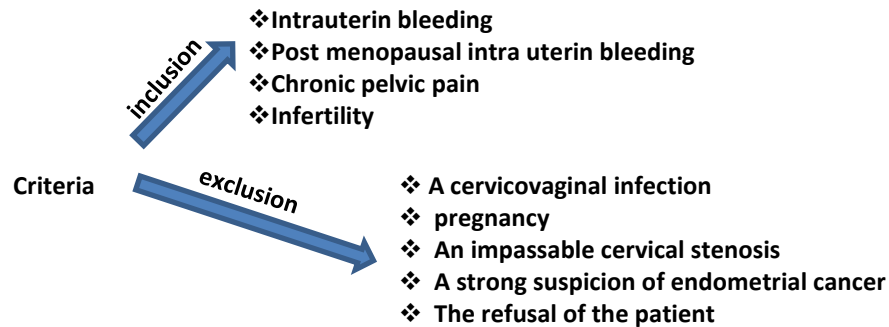
Does the advent of the transvaginal ultrasound and The transvaginal ultrasound with contrast enhancement (TUCE) improve the performance of ultrasound?

## Objective

Determine the contribution of hydrosonography, also named vaginal ultrasound with contrast enhancement (VUCE) in the exploration of the uterine cavity abnormalities.

## Patients and methods

We held a comparative retrospective study on 160 cases of hydrosonographies practiced in the department "C" of the Center Of Maternity and Neonatology of Tunis (CMNT), over a period of two years: from January 2012 to December 2013. We have included patients who underwent the three examinations.



## Results

The mean age of our patients was 37 years with extremes from 28 to 52 years. The reasons for consultation were: menorrhagia in 68.6% of cases, chronic pelvic pain in 25% of cases, exploration of infertility in 28.1% of cases.



Fig 1: hydrosonographie: cavité utérine normale

All diseases combined, VUCE had a sensitivity of 94% (90% for TVU and 96% for HSC), a specificity of 91% (58.6% for TVU, 91.7% for HSC); a PPV of 94% (vs. 71.4% for TVU and 94.1% for HSC) and a NPV of 91% (vs. 85% for TVU and 96% for HSC).

The sensitivity, specificity, positive and negative predictive value of hydrosonography in the detection of polyps, intracavitary fibroids and endometrial hypertrophy are significantly higher than those of transvaginal ultrasound alone. There is no significant difference in these parameters for diagnostic hysteroscopy.

## Discussion

TAU and TVU are the gold standard in exploration of uterine abnormalities.

TUCE is better to detect pathology of the endometrium.

Some authors now consider TUCE as a further investigation of the TVU : it increases the diagnostic yield without significantly reducing comfort.

Diagnostic HSC remains to several authors the reference technique for the exploration of the uterine cavity. (Direct analysis, directed biopsy.

In the literature: HSC and TUCE have no significant difference.

Bernard et al: VUCE = an alternative to diagnostic HSC, it decreases nearly 50% of invasive procedures .

In our study all intracavitary diseases combined , the value of TUCE appears comparable to the HSC.

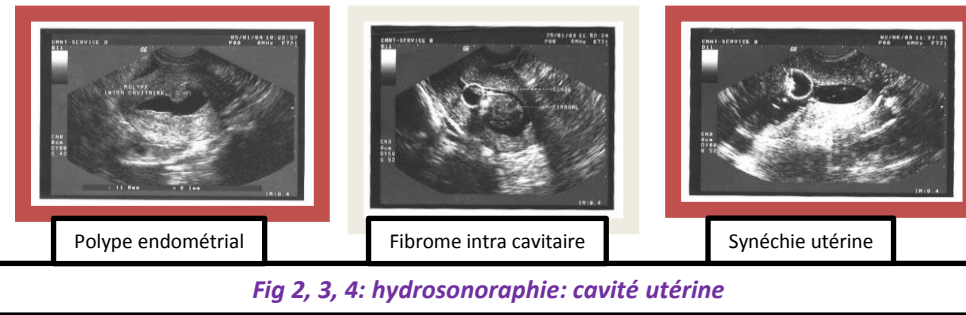


Fig 2, 3, 4: hydrosonographie: cavité utérine

Our results are consistent with those in the literature concerning the sensitivity, specificity TVU, VUCE and HSC in the diagnosis of endometrial polyps, fibroids and the intracavitaires uterine malformations.

## Conclusion

The hydrosonography is a simple, minimally invasive and effective tool that has taken a prominent place in diagnosis of intracavitary and endometrial lesions. Used as a routine first-line exploration can help to select patients who require further explorations.