COMPARATIVE STUDY OF TRANSVAGINAL SONOGRAPHY AND HYSTEROSCOPY FOR THE DETECTION OF PATHOLOGICAL ENDOMETRIAL LESIONS IN WOMEN WITH PERIMENOPAUSAL BLEEDING

By

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ABSTRACT

Background: Abnormal uterine bleeding is a common gynecological presentation in outpatient clinic, but is often complex and difficult to diagnose. Abnormal uterine bleeding (AUB) is the main reason in women to refer to gynecologists and accounts for two thirds of all hysterectomies.

Objectives: The aim of this study was to compare the diagnostic accuracy of two dimensional transvaginal ultrasound and hysteroscopy referring to histopathology in evaluation of uterine cavity lesions in perimenopausal women with abnormal uterine bleeding.

Subjects and methods: This was a prospective cohort study. The study was carriedout at Al Agouza Police Hospital, on fifty women in peri-menopausal period, The study was conducted the period from April 2019 till December 2019. All participants received comprehensive information regarding objective and the expected benefit of the study. All ethical considerations were taken throughout the whole work.

Results: The results of the study revealed that sensitivity 2D TVS in detection of endometrial hyperplasia was 100%, specificity was 88.7%, PPV was 73.30%, NPV was 100%, and accuracy was 94% with area under ROC curve 0.99, and sensitivity of hystroscope in detection of endometrial polyp was 36.3%, specificity was 100%, PPV was 100%, NPV was 84.7%, accuracy was 86% with area under ROC curve 0.45.

Conclusion: Transvaginal sonography has a moderate diagnostic accuracy in detecting endometrial hyperplasia and other intrauterine pathology. It is safe, acceptable and easily available in most secondary and tertiary care setting and is noninvasive. It should be continued as 1st line diagnostic tool in patients with abnormal uterine bleeding in perimenopausal women.

Keywords: Perimenopausal, Transvaginal Sonography, Abnormal Uterine Bleeding, Diagnostic, endometrial, Intrauterine, Hysteroscopy.

INTRODUCTION

Abnormal uterine bleeding (AUB) is the main reason women are referred to gynecologists and accounts for two thirds of all hysterectomies *(Sun et al., 2018)*.

AUB is responsible for as many as one-third of all outpatient gynecologic visits and this proportion rises to 69 % in a perimenopausal *(Whitaker and Critchley, 2016)*.

In perimenopausal women, AUB is diagnosed when there is a substantial change in frequency, duration, or amount of bleeding during or between periods. In postmenopausal women (mostly between 45-55 years old), any vaginal bleeding 1 year after cessation of menses is considered abnormal *(Verma et al., 2014).*

The cause of AUB in perimenopausal women is found in 50% to 60% of cases. The remaining cases, where no organic cause is found, are classified as dysfunctional uterine bleeding "DUB" *(Albers et al., 2010).*

Diagnostic procedures for anatomic changes and for endometrial carcinoma include ultrasonography, diagnostic hysteroscopy, sonohysterogram, and dilation and curettage (D&C) *(Shokouhi, 2015).*

Ultrasonography used to look for ovarian or uterine disease and endometrial biopsy (EMB). Transvaginal Sonography (TVS) is 80% sensitive and 69% specific for fibroids and polyps and is superior to transabdominal ultrasound (TAS). If possible, TVS should be performed on days 4 to 6 of the menstrual cycle .In perimenopausal women, there is no known correlation between endometrial thickness seen on ultrasound scan and endometrial disease *(Veena & Shivalingaiah, 2014* and *Shobhitha et al., 2015).*

Hysteroscopy allows direct visualization of the endometrial cavity and is usually combined with EMB *(Ratner et al., 2019).*

Evaluation of AUB in perimenopausal women is challenging. As a result of the decline in ovarian function, changes in menstrual cycles are common in these women. As with postmenopausal bleeding, abnormal perimenopausal bleeding is associated with endometrial carcinoma in approximately 10% of cases so evaluation of women′s risk factors for endometrial hyperplasia or carcinoma is recommended *(Dueholm and Hjorth, 2017).*

The aim of this study was to compare the diagnostic accuracy of two dimensional transvaginal ultrasound and hysteroscopy referring to histopathology in evaluation of uterine cavity lesions in perimenopausal women with abnormal uterine bleeding.

PATIENTS AND METHODS

This was a prospective cohort study, which was carried out Al-Agouza Police Hospital, carried on fifty women in peri-menopausal period. The study was conducted during the period from April 2019 till December 2019.

The researcher introduced himself to all participants included in this study and asked them to participate after illustrating the goal of the study. All participants received comprehensive information regarding objective and the expected benefit of the study. All ethical considerations were taken throughout the whole work.

Inclusion criteria:

Perimenopausal age group (40-55 years) having abnormal uterine bleeding.

Exclusion criteria:

• History of drug intake that can lead to vaginal bleeding.

- Evidence of general cause that can cause vaginal bleeding, e.g: Blood clotting disorder, thyroid disease, chronic liver failure.

- Vaginal, vulval or cervical causes of bleeding.

- Using any local or hormonal method of contraception e.g: trauma, tampon use, intrauterine device, forigen body.

All patients wer subjected to:

- History, clinical examination and laboratory investigations including CBC, coagulation profile, fasting and post prandial blood sugar, liver and kidney function and pregnancy test, conventional 2D- Transvaginal ultrasonography using general electric (GE) logic 200 ultrasound machine with a transvaginal probe (GE 6.5

MTZ) measuring uterine size and endometrial thickness, looking for endometrial polypi and any relevant adnexal pathology and hysteroscopic examination using Karl Storz "office hysteroscope" (Germany), fractional curettage.

- All the specimens were placed in formalin 10% and sent for histopathological correlation.

Statistical analysis:

Analysis of data was done using Statistical Pakage for the Social Science version 20 (SPSS Inc., Chicago, IL, USA). Quantitative variables were described in the form of mean and standard deviation. Qualitative variables were described as number and percent. P value < 0.05 is considered significant.

RESULTS

Fifty 50 perimenopausal women with AUB who were included had age ranged from 40-54years (mean of 46.5 ± 4.1ys) and their parity ranged from 0-7 (mean 3.6 ± 1).the majority of our sample were multiparous (90%) **(Table 1)**.

Table (1): Age and parity of the patient

AGE		
Mean age (± SD) Range	46.5 ± 4.1 40-54	
Parity		
Mean parity (± SD) Range	3.6 ± 1 0-7	
	No.	**%**
Nulliparous Multiparous	5 45	10.0% 90.0%

Endometrial hyperplasia was the most frequent finding by TVS (30%) with a mean endometrial thickness of 11.3 ± 2.1 mm followed by endometrial polyp (28%) with a mean endometrial thickness of 21.3 ± 2.3mm **(Table 2)**.

Table (2): Transvaginal sonography findings:

TVS Diagnosis	Total	Mean ± SD
Normal endometrium	10 (20%)	6.6±1.0
Endometrial thickness 8 mm	15 (30%)	11.3 ± 2.1
Endometrial thickness 8 mm + Adenomyosis	3 (6%)	10.2±2.8
Adenomyosis	4 (8%)	6.1±0.7
Endometrial Polyp	14 (28%)	21.3±2.3
Submucosal fibroid	4 (8%)	8.7±2.9
TOTAL	50 (100%)	—

The commonest lesion diagnosed by histopathology is endometrial hyperplasia which was found in 50% of the examined specimen and 38% of ultrasonic findings. Using hysteroscopy the commonest lesion diagnosed was endometrial polyp which was found in 28% of cases while endometrial hyperplasia found only in 20% **(Table 3)**.

Table (3): Hysteroscopy findings

Findings	Number	Percent
Normal Endometrium	19	38%
Endometrial Hyperplasia	10	20%
Endometrial Polyp	14	28%
Adenomyosis	4	8%
Submucosal Fibroid	3	6%
TOTAL	50	100%

Sensitivity 2 D TVS in detection of endometrial hyperplasia was 100%, specificity was 89.7%, PPV was 73.30%, NPV was 100%, accuracy was 94% with area under ROC curve 0.99. Sensitivity 2 D TVS in detection of endometrial polyp was 93.3%, specificity was 100%, PPV was 100%, NPV was 97.2%, accuracy was 100% with area under ROC curve 1.0. Sensitivity 2 D TVS in detection of endometrial polyp was 63.6%, specificity was 100%, PPV was 100%, NPV was 90.7%, accuracy was 92% with area under ROC curve 0.71. Sensitivity 2 D TVS in detection of submucus fibroid was 100%, specificity was 95.8%, PPV was 50%, NPV was 100%, accuracy was 92% with area under ROC curve 0.71 **(Table 4)**.

Table (4): Validity of of 2 D TVS in detection of endometrial hyperplasia, endometrial polyp, adenomyosis and submucus fibroid

2 D TVS / Histopatology		Positive	Negative
Endometrial hyperplasia	Positive	11	4
	Negative	0	35
	AUC	0.99	
	Sensitivity	100.0	
	Specificity	89.7	
	PPV	73.3	
	NPV	100.0	
	Accuracy	94.0	
Endometrial polyp	Positive	14	0
	Negative	1	35
	AUC	1.0	
	Sensitivity	93.3	
	Specificity	100.0	
	PPV	100.0	
	NPV	97.2	
	Accuracy	100.0	
Adenomyosis	Positive	7	0
	Negative	4	39
	AUC	0.71	
	Sensitivity	63.6	
	Specificity	100.0	
	PPV	100.0	
	NPV	90.7	
	Accuracy	92.0	
Submucus Fibroid	Positive	2	2
	Negative	0	46
	AUC	0.71	
	Sensitivity	100	
	Specificity	95.8	
	PPV	50	
	NPV	100	
	Accuracy	92.0	

Sensitivity of hystroscope in detection of endometrial hyperplasia was 90.9%, specificity was 100%, PPV was 100%, NPV was 97.5% and accuracy was 98%. Sensitivity of hystroscope in detection of endometrial polyp was 93.3%, specificity was 100%, PPV was 100%, NPV was 97.2%, accuracy was 100% with area under ROC curve 1.0. Sensitivity of hystroscope in detection of endometrial polyp was 36.3%, specificity was 100%, PPV was 100%, NPV was 84.7%, accuracy was 86% with area under ROC curve 0.45. Sensitivity of hystroscope in detection of submucus fibroid was 36.3%, specificity was 100%, PPV was 100%, NPV was 84.7%, accuracy was 86% with area under ROC curve 0.45 **(Table 5)**.

Table (5): Validity of hystroscope in detection of endometrial hyperplasia, endometrial polyp, adenomyosis and submucus fibroid

Hystroscope \\ Histopatology		Positive	Negative
Endometrial hyperplasia	Positive	10	0
	Negative	1	39
	Sensitivity	90.9	
	Specificity	100.0	
	PPV	100.0	
	NPV	97.5	
	Accuracy	98.0	
Endometrial polyp	Positive	14	0
	Negative	1	35
	AUC	1.0	
	Sensitivity	93.3	
	Specificity	100.0	
	PPV	100.0	
	NPV	97.2	
	Accuracy	100.0	
Adenomyosis	Positive	4	0
	Negative	7	39
	AUC	0.45	
	Sensitivity	36.3	
	Specificity	100.0	
	PPV	100.0	
	NPV	84.7	
	Accuracy	86.0	
Submucus Fibroid	Positive	4	0
	Negative	7	39
	AUC	0.45	
	Sensitivity	36.3	
	Specificity	100.0	
	PPV	100.0	
	NPV	84.7	
	Accuracy	86.0	

DISCUSSION

Fifty perimenopausal women with AUB who were included had age ranged from 40-54years (mean of 46.5± 4.1ys), and their parity ranged from 0-7 (mean 3.6± 1). The majority of our sample was multiparous 90%. All the patients complained of AUB (100%). AUB was associated with pain in 40% of the cases, and with infertility in 12% of the cases.

The commonest bleeding pattern was menorrhagia (42%).

Normal histopathological findings were present in 20% of cases, single lesion in 48% and more than one lesion in 32% of cases. Sensitivity 2 D TVS in detection of endometrial hyperplasia was 100%, specificity was 88.7%, PPV was 73.30%, NPV was 100%, and accuracy was 94% with area under ROC curve 0.99. Sensitivity of hystroscope in

detection of endometrial hyperplasia was 90.9%, specificity was 100%, PPV was 100%, NPV was 97.5% and accuracy was 98%.

Sensitivity 2D TVS in detection of endometrial polyp was 100%, specificity was 100%, PPV was 100%, NPV was 100%, accuracy was 100%.Sensitivity of hystroscope in detection of endometrial polyp was 100%, specificity was 100%, PPV was 100%, NPV was 100%, accuracy was 100%.

El-Khayat et al. (2017) conducted a study over patients with perimenopausal bleeding whose range of age 40–55 years (mean of 46.8 ± 4.5 years) and their parity ranged from 0–8 (mean 3.5 ± 2).

In the present study, all the patients complained of AUB (100%). AUB was associated with pain in 40% of the cases and with infertility in 12% of the cases. The commonest bleeding pattern was menorrhagia (42%), followed by menometrorrhagia in 32%.

El-Khayat et al. (2017) in their study demonstrated that AUB was associated with pain in 38% of the cases, and with infertility in 10% of the cases. The commonest bleeding pattern was menorrhagia (40%) followed by menometrorrhagia in 34%. *Choudhary et al. (2017)* noticed that the most common bleeding pattern was heavy menstrual bleeding (50%). *Pillai (2014)* had 46.5% patients with menstrual complaints of menorrhagia. *Verma et al. (2014)*, in their study, had polymenorrhoea in 23% of cases and metrorrhagia in 19% of cases.

In our study, histopathology findings revealed normal histopathological findings in 20% of cases, single lesion in 48% and more than one lesion in 32% of cases. *El-Khayat et al. (2017)* verified that endometrial hyperplasia was found in about half of these lesions and was associated with endometrial polyp in half of the multiple lesions.

In this study, by 2D TVS, endometrial hyperplasia was the most frequent finding by TVS (30%) with a mean endometrial thickness of 11.3 ± 2.1 mm, followed by endometrial polyp (28%) with a mean endometrial thickness of 21.3±2.3mm. This was in concordant with *El-Khayat et al. (2017)* who illustrated that endometrial hyperplasia. The most frequent finding by TVS was 32%, with the appearance of well defined, thick and highly reflective layer occupying the whole of the endometrial cavity with a mean endometrial thickness of 11.2 ± 2.4 mm, followed by endometrial polyp (26%) with a mean endometrial thickness of 18.0 ± 5.3 mm.

On the contradict *Choudhary et al. (2017)* found that TVS at endometrial thickness 5 to 8 mm, and no endometrial pathology was found. *Shobhitha et al. (2015)* also observed that no endometrium abnormality was found on ET <8mm. *Veena and Shivalingaiah (2014)* revealed normal endometrium in 45% (majority of these patients had endometrial thickness less than 9mm).

In the present study by hysteroscopy, commonest findings were endometrial hyperplasia which was found in 50% of the examined specimen, and 38%of ultrasonic findings. Using hysteroscopy, the commonest lesion diagnosed was endometrial polyp which was found in 28% of cases, while endometrial hyperplasia found only in 20%.

El-Khayat et al. (2017) found that, by hysteroscopy, the commonest lesion diagnosed was endometrial polyp which was found in 28% of cases, while endometrial hyperplasia found only in 20% with the appearance of thick endometrium with bridging between layers of the endometrium, increased vascularization, increased bleeding and polypoid formation. These changes can be focal or global.

In our study, when we compared 2D TVS ultrasound and hysteroscopy findings with histopathologic findings of tissue obtained by hysterectomy or D&C, we found that for diagnosing endometrial hyperplasia sensitivity 2D TVS in detection of endometrial hyperplasia was 100%, specificity was 88.7%, PPV was 73.30%, NPV was 100%, accuracy was 94% with area under ROC curve 0.99, sensitivity of hystroscope in detection of endometrial hyperplasia was 90.9%, specificity was 100%, PPV was 100%, NPV was 97.5% and accuracy was 98%.

El-Khayat et al. (2017) illustrated that 2D ultrasound show good sensitivity in detection of endometrial polyp, highest specificity and accuracy was for adenomyosis. Hysteroscopy was poorly sensitive, but highly specific for both endometrial hyperplasias.

On the other hand, *Choudhary et al. (2017)* reported that the sensitivity, specificity, PPV, NPV for diagnosis of endometrial hyperplasia on TVS was 81.81, 94.43%, 90%, 95%, also hysteroscopy showed endometrial hyperplasia in 20% cases of AUB and other intrauterine pathology observed was polyp which was found in 16% of cases, sub mucosal fibroid in 8% of cases

respectively. *Shokouhi (2015)* revealed that the accuracy, sensitivity, specificity, PPV, and NPV were 88.25%, 90.7%, 84%, 97.7%, and 84% respectively in premenopausal women in AUB patients especially in endometrial hyperplasia in their study. Also, *Patil et al. (2011)* showed hyperplasia in 18%, endometrial polyp in 9%, and sub mucosal myoma in 11%.

For diagnosing endometrial polyp we founded that sensitivity 2D TVS in detection of endometrial polyp was 100%, specificity was 100%, PPV was 100%, NPV was 100%, accuracy was 100% with area under ROC curve 1.0, that sensitivity of hystroscope in detection of endometrial polyp was 100%, specificity was 100%, PPV was 100%, NPV was 100%, accuracy was 100% with area under ROC curve 1.0.

El-Khayat et al. (2017) reported that for endometrial polyp hysteroscopy was highly sensitive, specific and accurate. Ultrasound was a little more accurate than hysteroscopy in diagnosing endometrial hyperplasia, detection of endometrial polyp all accuracy measures of hysteroscopy were higher than those of ultrasound. *Choudhary et al. (2017)* revealed that the sensitivity, specificity, PPV, NPV was 100% for polyp and sub mucosal fibroid in hysteroscopy.

For diagnosing adenomyosis, sensitivity 2D TVS in detection of endometrial polyp was 63.6%, specificity was 100%, PPV was 100%, NPV was 90.7%, accuracy was 92% with area under ROC curve 0.71. That sensitivity of hystroscope in detection of endometrial polyp was 36.3%, specificity was 100%, PPV was 100%, NPV was 84.7%, and

accuracy was 86% with area under ROC curve 0.45.

El-Khayat et al. (2017) revealed that ultrasound was more accurate than hysteroscopy in diagnosing adenomyosis. *Clark et al. (2018)* in their meta-analysis to determine the accuracy of hysteroscopy in diagnosing endometrial cancer and hyperplasia in women with AUB, 65 primary studies were analyzed, including 26346 women, they found that the weighted overall sensitivity was 78.0% (95% CI, 76.3%-79.6%) and specificity was 95.8% (95% CI, 95.6%-96.1%) for endometrial hyperplasia.

To evaluate the accuracy of TVS in the diagnosis of adenomyosis, *Bazot et al. (2010)* found that the sensitivity, specificity, and positive and negative predictive values of TVS, 100% and 83.3%, and 40% and 82.9%, respectively, and the accuracy of TVS was 91.3%. Our data were consistent with these findings.

The study of *Özdemir et al. (2010)* was undertaken to investigate cut-off value of the endometrial thickness by TVS. An optimal sensitivity and specificity (83.6 and 56.4%, respectively) and NPV with 95.6% for detection of abnormal endometrium were obtained with an endometrial thickness of 8 mm. They concluded that an endometrial thickness >8 mm is more likely than that of 8 mm or less to be indicated with EMB in perimenopausal uterine bleeding.

Results of TVS and hysteroscopy by *Ryu et al. (2010)* were correlated with the pathological findings. The sensitivity and specificity were 79.0% and 45.8% for TVS, and 95.1% and 83.3% for hysteroscopy, respectively. The positive and negative predictive values were 83.0% and 39.3% for TVS, and 95.1% and 83.3% for hysteroscopy, respectively. They concluded that hysteroscopy can be better used than TVS in evaluating those patients with AUB. Our study, in contrast found that TVS was a little more accurate than hysteroscopy for differentiating normal from abnormal endometrial cavity.

The limitation of the current study was the low number of patients with conditions other than uterine polyps or hyperplasia thus not allowing direct comparison of the two methods for myoma, placental residual material and cancer.

CONCLUSION

Transvaginal sonography has a moderate diagnostic accuracy in detecting endometrial hyperplasia and other intrauterine pathology. TVS is safe, acceptable and easily available in most secondary and tertiary care setting and is noninvasive.

REFERENCES

1. **Albers JR, Hull SK and Wesley RM. (2010):** Abnormal Uterine Bleeding. American Family Physician, 69: 1915-1926.

2. **Bazot M, Darai E, Rouger J, Detchev R, Cortez A and Uzan S. (2010):** Limitations of transvaginal sonography for the diagnosis of adenomyosis, with histopathological correlation. Ultrasound in Obstetrics and Gynecology: The Official Journal of the International Society of Ultrasound in Obstetrics and Gynecology, 20(6): 605-611.

3. **Choudhary J, Acharya V and Jain M. (2017):** Evaluation of abnormal uterine bleeding with transvaginal sonography and hysteroscopy in perimenopausal women. International Journal of Reproduction, Contraception, Obstetrics and Gynecology, 6(8): 3607-13.

4. **Clark TJ. (2018):** Hysteroscopy or Curettage? In: Hysteroscopy. Pbl. Springer, Cham., Pp. 141-148.

5. **Dueholm M and Hjorth IMD. (2017):** Structured imaging technique in the gynecologic office for the diagnosis of abnormal uterine bleeding. Best Practice & Research Clinical Obstetrics & Gynaecology, 40: 23-43.

6. **El-Khayat W, Ibraheem F, Ahmed AM, Ramadan AA, Khalifa SE and Ebrahim MF. (2017):** Assessment of Perimenopausal Bleeding Using Three-Dimensional Hysterography, Hysteroscopy, and Histopathology. Journal of Obstetrics, Gynecology and Cancer Research, 2(2): 23-29.

7. **Özdemir S, Çelik Ç, Gezginç K, Kıreşi D and Esen H. (2010):** Evaluation of endometrial thickness with transvaginal ultrasonography and histopathology in premenopausal women with abnormal vaginal bleeding. Archives of Gynecology and Obstetrics, 282(4): 395-399.

8. **Patil SG, Bhute SB, Inamdar SA, Acharya NS and Shrivastava DS. (2011):** Role of diagnostic hysteroscopy in abnormal uterine bleeding and its histopathologic correlation. Journal of Gynecological Endoscopy and Surgery, 1(2): 98-102.

9. **Pillai SS. (2014):** Sonographic and histopathological correlation and evaluation of endometrium in perimenopausal women with abnormal uterine bleeding. International Journal of Reproduction, Contraception, Obstetrics and Gynecology, 3(1): 113-7.

10. **Ratner RT, Tsaltas J and Vollenhoven B. (2019):** Hysteroscopy and the risk of gas embolism: A review. Journal of Endometriosis and Pelvic Pain Disorders, 22: 140-147.

11. **Ryu JA, Kim B, Lee J, Kim S and Lee SH. (2010):** Comparison of transvaginal ultrasonography with hysterosonography as a screening method in patients with abnormal uterine bleeding. Korean Journal of Radiology, 5(1): 39-46.

12. **Shobhitha GL, Kumari VI, Priya PL and Sundari BT. (2015):** Endometrial study by TVS and It's correlation with histopathology in abnormal uterine bleeding. J Dental Med Sci., 14(4): 21-32.

13. **Shokouhi B. (2015):** Role of transvaginal ultrasonography in diagnosing endometrial hyperplasia in pre-and post-menopause women. Nigerian medical journal: journal of the Nigeria Medical Association, 56(5): 353-8.

14. **Sun Y, Wang Y, Mao L, Wen J and Bai W. (2018):** Prevalence of abnormal uterine bleeding according to new International Federation of Gynecology and Obstetrics classification in Chinese women of reproductive age: A cross-sectional study. Medicine, 97(31): 135-142.

15. **Veena BT and Shivalingaiah N. (2014):** Role of transvaginal sonography and diagnostic hysteroscopy in abnormal uterine bleeding. Journal of clinical and diagnostic research: JCDR, 8(12): 6-9.

16. **Verma U, Garg R, Singh S, Yadav P and Rani R. (2014):** Diagnostic Approach in Perimenopausal Women with Abnormal Uterine Bleeding. Journal of Safoms, 2(1): 12-16.

17. **Whitaker L and Critchley HO. (2016):** Abnormal uterine bleeding. Best Practice & Research Clinical Obstetrics & Gynaecology, 34: 54-65.

دراسة مقارنة دقة الموجات فوق الصوتية عن طريق المهبل والمنظار الرحمى فى الكشف عن إصابات بطانة الرحم فى حالات النزيف قبل سن اليأس

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خلفيـــة البحـــث: نزيـف الـرحم غيـر الطبيعـي هـو عـرض شـائع للأمـراض النسـائية فـي العيـادة الخارجيـة للمـريض، ولكنـه غالبًـا مـا يكـون معقـدًا ويصـعب تشخيصـه. نزيـف الـرحم غيـر الطبيعـي هـو السـبب الرئيسـي لإحالـة النسـاء إلـى أطبـاء النسـاء ويمثـل ثلثـي جميـع عمليـات استئصـال الـرحم. ونزيـف الـرحم غيـر الطبيعـي مسـؤول عـن مـا يصـل إلـى ثلـث جميـع زيـارات العيـادات الخارجيـة لأمـراض النسـاء وهـذه النسـبة ترتفـع إلى 69٪ في مجموعـة مـا حول انقطاع الطمث.

الهـدف مـن البحـث: مقارنـة الدقـة التشخيصـية للموجـات فـوق الصـوتية ثنائيـة الأبعـاد عبـر المهبـل والمنظـار الرحمـى بالمرجعيـه إلـى التحليـل النسـيجى فـي تقيـيم أمـراض تجويـف الـرحم لـدى النسـاء فـي فتـرة مـا حـول انقطـاع الطمـث مـع نزيـف الـرحم غيـر الطبيعي.

المريضـــات وطـرق البحـــث: تمـت الدراسـة علـى 50 مريضـة فـى السـن المتقـدم لتقيـيم نزيـف الـرحم الشـاذ والتـي تـم إجراؤهـا بمستشـفى الشـرطه بـالعجوزة وخضـعن لكـل مـن الموجـات فـوق الصـوتيه عـن طريـق المهبـل لقيـاس سـمك بطانـة الـرحم، وفحـص مفصـل بالمنظـار الرحمـي, وأخيـرا دراسـه الأنسـجه مرضيا، وتـم مقارنـة نتـائج هـذه الأدوات التشخيصيه مع بعضها البعض.

نتـــائج البحـث: جميـع المرضـيات اشـتكين مـن نزيـف الـرحم غيـر الطبيعـي (100٪) و ارتـبط نزيـف الـرحم غيـر الطبيعـي بـالألم فـي 40٪ مـن الحـالات والعقـم فـي 12٪ مـن الحـالات. كـان زيـاده نمـط نزيـف الـدم هـو الأكثـر شـيوعا (42٪) و كانـت النتـائج المرضـية الطبيعيـة موجـودة فـي 20٪ مـن الحـالات، والآفـة واحـدة فـي 48٪ وأكثـر مـن آفـة واحـدة فـي 32٪ مـن الحـالات. وكانـت حساسـية السـونار المهبلـي ثنـائي الأبعـاد

في الكشــف عــن تضــخم بطانــة الــرحم 100٪، وكانــت خصوصــية 88.7٪، والقيمــة التنبؤيــة الإيجابيــة كانــت 73.30٪، والقيمــة التنبؤيــة الســلبية 100٪، وكانــت الدقــة 94٪0 وكانــت حساســية المنظــار الرحمــي فــي الكشــف عــن تضــخم بطانة الــرحم 90.9٪، وكانــت الخصوصــية 100٪، والقيمــة التنبؤيــة الإيجابيــة كــان 100٪، وكانــت القيمــة التنبؤيــة الســلبيه 97.5٪ والدقــة 98٪. وكانــت حساســية الســونار المهبلــي ثنــائي الأبعــاد فــي الكشــف عــن ورم بطانــة الــرحم 100٪، وكــان خصوصية 100٪، والقيمــة التنبؤيــة الإيجابيــة 100٪، والقيمــة التنبؤيــة الســلبية 100٪، وكانــت الدقــة 100٪. كانــت حساســية مــن المنظــار الرحمــي فــي الكشــف عــن ورم بطانة الــرحم 100٪، وخصوصــية 100٪، والقيمــة التنبؤيــة الإيجابيــة 100٪، والقيمــة التنبؤية السلبية 100٪، و الدقة 100٪.

الاســتنتاج: يتميــز التصــوير فــوق الصــوتي عبــر المهبــل بدقــة تشخيصــية معتدلــة فــي الكشــف عــن تضــخم بطانــة الــرحم والأمــراض الأخــرى داخــل الــرحم. وهــو آمــن ومقبــول ومتــوفر بســهولة فــي معظــم أمــاكن الرعايــة الثانويــة والثالثيــة وهــو غيــر جراحــي. يجــب أن تســتمر كــأداة تشــخيص الخــط الأول فــي المرضــى الــذين يعــانون من نزيف الرحم غير الطبيعي عند النساء في فترة ما قبل انقطاع الطمث.

الكلمــات الدالــة: فتــرة مــا حــول ســن اليــأس، تشخيصــي، بطانــة الــرحم، داخــل الــرحم، تنظير الرحم.