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COMPARATIVE CONCLUSIONS OF DIAGNOSIS IN UTERINE BODY CANCER

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ABSTRACT

Evaluation of the effectiveness and diagnostic accuracy of the Pipelle device in the early stages of endometrial sampling, precancerous diseases, including endometrial hyperplasia, atypical hyperplasia, endometrial polyps, and various histological types of endometrial cancer, compared to the traditional curette.

KEYWORDS

Curettage, Pipelle, biopsy, adenocarcinoma, atypical.

INTRODUCTION

Uterine cancer is one of the most common cancers among women in all countries of the world, making up

7.1% and increasing from 1 to 2% every year. Republican Specialized Scientific and Practical Oncology and

Radiology Medical Center Tashkent City Branch Cancer Registry 2010-20 In 2010, the analyzed data on uterine body cancer showed that in 2010, 5,253 patients with uterine body cancer were registered, and in 2020, 5,017 new cases of uterine body cancer were recorded. During the analyzed period, 70% of uterine cancer was recorded in stages I-II. The maximum incidence of cancer was observed at the age of 45-65 years. [2,5]. In 2018: I stage - 31.2%, II stage - 39.9%, III stage - 16.1%, IV - 5.3%. In 2018, the mortality rate was 0.7 (234 patients) and the 5-year survival rate was 47.3%. Patients were divided into the following stages: I stage - 34.8%, II stage - 41.7%, III stage - 14.4%, IV stage - 3.1%. In 2020, the mortality rate was 0.8 (256 patients) and the 5-year survival rate was 49.5%. In 2020, patients were divided into the following stages: I stage - 35.8%, II stage - 41.7%, III stage - 11.3%, IV stage - 4.4%. the patient came from the village. The 5-year survival rate was 48.7%. [3,6]. In 2008-2012, it increased by 1.2 times and in 2012 it was 41.9 per 100,000 women. The death rate from BTS has been steadily increasing since 2008 and peaked at 3.1 in 2009; from 2012 to 2017, a stable figure of 2.2 was recorded. When analyzing the statistical indicators of death from BTS, it should be noted that the rate of 3.1 per 100,000 population in 2009 in the 10-year period (2008-2017) is much higher. Its decrease since 2010, 1.8 indicators recorded in 2016, indicates the high efficiency of BTS treatment in Tashkent[1,4].

The object of research was the branch of the Republic of Specialized Oncology and Radiology Scientific and Practical Medical Center in Tashkent. Biomaterials were taken from the uterine body of patients referred to the Tashkent city branch with suspected uterine cancer. First of all, under the control of ultrasound practice, biomaterial was collected using curettage and “pipelle” - urogenital probe, and the results of the research were summarized. The study included women of reproductive age who complained of acyclic menstrual cycles, as well as pre- and postmenopausal women who complained of bloody discharge from the genital tract, who were found to have abnormal thickness of the endometrium by ultrasound, who were under dynamic observation with regard to pre-cancerous diseases, and who were constantly taking tamoxifen tablets. and as a result, women suffering from endometrial hyperplasia, patients whose atypical hyperplasia was detected in the biomaterial obtained after scraping, taking into account the complaints of the uterine body and the conclusion of instrumental examinations, were included. Patients were divided into four groups:

- I – control group. Patients with endometrial tissue sampling by traditional diagnostic curettage method
- II – control group. A group of patients with endometrial tissue sampling by diagnostic curettage from the uterine body under ultrasound examination (50 patients)

III main group. A group of 50 patients were sampled for histological examination of endometrial tissue using a disposable “Pipelle” urogenital probe under ultrasound control.

IV – main group. A group of patients (44 patients) where endometrial tissue was sampled using a disposable “Pipelle” urogenital probe.

Among the patients included in the study, in patients with contraindications to traditional curettage, in cases where curettage was inconvenient, or in women who refused to undergo curettage at their own will, endometrial sampling was performed using a disposable “Pipelle” - urogenital probe. Patients with the following contraindications and adverse conditions were included:

- Women who have not given birth

- Patients with a closed cervix
- Women who underwent cauterization due to erosion of the cervix
- Women who gave birth by surgery
- Women with large uterus according to the results of instrumental examination
- Patients diagnosed with adenomyosis or endometriosis of reproductive age
- Women of reproductive age with infertility

The biological materials obtained from each group were placed in a 10% formalin container, sent for histological examination, and their pathomorphological conclusion was studied.

Results of pathogistological analysis of patients with endometrial samples taken by curettage and pipelle-biopsy methods

1- Table

Analysis of the results of histological examination in the traditional curettage method.

After operative treatment After curettage	Glandular hyperplasia	Endometrial polyp	Adenocarcinoma			Atypical hyperplasia	The operation was not performed	Total
			G1	G2	G3			
Glandular hyperplasia	48	8	1	0	1	0	16	74

Polyp		4	1	0	2	1	0	5	13
Adenocarcinoma	G1	0	0	1	0	0	0	0	1
	G2	0	0	0	1	0	0	0	1
	G3	0	0	0	0	4	0	0	4
Atypical hyperplasia		0	1	0	2	2	1	1	7
Total		52	10	2	5	8	1	22	100

Analysis of histological examination results. Traditional curettage method - I When the results of post-curettage and postoperative pathogistological examinations of patients included in the control group were considered, 74 endometrial glandular hyperplasia were found in the analyzes obtained during curettage. After surgery, the conclusion of endometrial hyperplasia was confirmed in only 48 of these patients (64.9%), endometrial polyp in 8 (10.8%), adenocarcinoma G1 and G3 (2.7%) in 2. 16 patients (21.6 %) did not undergo surgery, so it was not possible to analyze their further pathogistological findings. Endometrial polyps were detected in 13 women during sampling by curettage, and this diagnosis was

confirmed in only 1 of them, endometrial glandular hyperplasia in 4, adenocarcinoma G2 and G3 in 3. As 5 women did not undergo operative treatment after curettage, their post-surgical histological examination results were not analyzed. Endometrial malignant tumor disease was detected in 6 patients by curettage (G1-1, G2 - 1, G3 - 4), adenocarcinoma was diagnosed in 16 women due to the fact that adenocarcinoma was also detected in women with atypical hyperplasia after surgery. One more woman diagnosed with atypical hyperplasia had an endometrial polyp after surgery, and another woman did not undergo surgery, so it was not possible to analyze the histological samples after operative treatment (Table 1).

2-Table

Diagnostic indicators of the curettage method

Curettage method	Endometria 1 hyperplasia	Endometria 1 polyp	Adenoca rcinoma	Atypical hyperplasia	P
Sensitivity	92.31 %	44.5 %	64.57 %	100 %	0,05
Specificity	50.0 %	87.88 %	95.70 %	93.94 %	0,05
Accuracy	72.0 %	80.09 %	90.00 %	94.00 %	0,05
Positive prognostic value	66.67 %	38.79 %	100 %	26.58 %	0,05
Negative prognostic value	85.71 %	89.78 %	89.36 %	100 %	0,05

P≤0,05

Based on the obtained results, when the diagnostic indicators of the curettage method (sensitivity, specificity, accuracy, positive and negative prognostic values) are analyzed, we can see that the diagnostic indicators of the curettage method are not high in endometrial hyperplastic processes and cancer. The sensitivity of the method is highest in endometrial

glandular hyperplasia and atypical hyperplasia, while the specificity and specificity are highest in adenocarcinoma and atypical hyperplasia. The positive prognostic value is 100% in adenocarcinoma, while the negative prognostic value is 100% in atypical hyperplasia (table 2).

3- table

Histological results obtained when the curettage method was used under the control of UTT examination

Pathohistologic al types		Glandul ar hyperpl asia	Endo metria l polyp	Adenocarcino ma			Atypica l hyperpl asia	Operati ve treatme nt was not perform ed	Total
				G1	G2	G3			
Glandular hyperplasia		30	1	0	0	1	0	0	32
Polyp		0	8	0	0	0	0	0	8
Adenocarcinoma	G1	0	0	2	0	0	0	0	2
	G2	0	0	0	2	0	0	0	2
	G3	0	0	0	0	3	0	0	3
Atypical hyperplasia		0	0	0	0	0	3	0	3
Total		30	9	2	2	4	3	0	50

UTT + curettage method - II Endometrial sampling was performed by ultrasound-guided curettage from 50 women presenting with endometrial pathologies in the control group. According to the results of the pathogistological examination of the women sampled by this method, 32 women were diagnosed with endometrial gland hyperplasia, according to the results of the histological examination after surgery, 30 women had endometrial gland hyperplasia, 1 woman

had endometrial polyp, and 1 woman had endometrial low-differentiated adenocarcinoma (G3). determined. In all 8 women diagnosed with endometrial polyps by curettage, endometrial polyps were also detected in histological findings after operative treatment. Adenocarcinoma was diagnosed in 7 women (2 G1, 2 G2 and 3 G3) and atypical hyperplasia in 3 women by curettage under the control of UTT examination. Atypical hyperplasia and adenocarcinoma diagnoses

were confirmed in all patients with atypical hyperplasia and adenocarcinoma in the results of histological examination after surgery ($P \leq 0.05$) (Table 3).

4-Table

Diagnostic indicators of the curettage method performed under the control of UTT

UTT + curettage method	Endometria I hyperplasia	Endometria I polyp	Adenocarcin oma	Atypical hyperplasi a	P
Sensitivity	100 %	88.89 %	87.50 %	100 %	0,05
Specificity	90.00 %	100 %	100 %	100 %	0,05
Accuracy	96.00 %	98.00 %	98.00 %	100 %	0,05
Positive prognostic value	93.75 %	100 %	100 %	100 %	0,05
Negative prognostic value	100 %	97.62 %	97.67 %	100 %	0,05

$P \leq 0,05$

When the diagnostic indicators of the curettage method performed under the control of UTT are considered, we can see that the results are much different and higher than the traditional curettage method. All diagnostic indicators of this method were high in all endometrial pathologies, sensitivity in endometrial glandular hyperplasia and atypical

hyperplasia, specificity in endometrial polyps, adenocarcinoma and atypical hyperplasia, and specificity in atypical hyperplasia was 100%. The positive prognostic value was the highest (100%) in endometrial polyps, adenocarcinoma and atypical hyperplasia, while the negative prognostic value was 100% in atypical hyperplasia (Table 4)..

5-table

“Pipelle” analysis of histological results obtained after biopsy performed under the supervision of UTT

Pathohistological types	Glandular hyperplasia	Endometrial polyp	Adenocarcinoma			Atypical hyperplasia	Operative treatment was not performed	Total
			G1	G2	G3			
Glandular hyperplasia	25	0	0	0	0	0	0	25
Polyp	0	7	0	0	0	0	0	7
Adenocarcinoma	G1	0	0	3	0	0	0	3
	G2	0	0	0	3	0	0	3
	G3	0	0	0	0	8	0	8
Atypical hyperplasia	0	0	0	0	0	4	0	4
Total	25	7	3	3	8	4	0	50

The method of endometrial sampling using a single-use “pipelle” - urogenital probe under the control of UTT: Endometrial hyperplasia was detected in 25 women by this method in our main group III, where the method of endometrial sampling using a single-use Ripelle-urogenital probe was used under the control of UTT, and endometrial hyperplasia was confirmed in all of

them even after operative treatment. Endometrial polyps were detected in 7 women using this method, and endometrial polyps were confirmed in 7 of these women. Adenocarcinoma (3 G1, 3 G2, 8 G3) was diagnosed in 14 women sampled using the Ripelle-urogenital probe under UTT control, and this diagnosis was confirmed in all of these women even after

operative treatment. In 4 women diagnosed with atypical hyperplasia, the diagnosis of atypical hyperplasia was confirmed in the histological

examination after operative treatment ($P \leq 0.05$) (Table 5).

6-table

Diagnostic indicators of the Ripelle-biopsy method performed under the control of UTT

Ripelle - biopsy	Endometrial hyperplasia	Endometrial polyp	Adenocarcinoma	Atypical hyperplasia	P
Сезгирлиги	100 %	100 %	100 %	100 %	0,05
Specificity	100 %	100 %	100 %	100 %	0,05
Accuracy	100 %	100 %	100 %	100 %	0,05
Positive prognostic value	100 %	100 %	100 %	100 %	0,05
Negative prognostic value	100 %	100 %	100 %	100 %	0,05

$P \leq 0,05$

According to the results obtained by comparing the histological results obtained after the Ripelle-biopsy method and the histological results after operative treatment, all diagnostic parameters (sensitivity,

specificity, accuracy, positive and negative prognostic values) of this method are the highest in all endometrial pathologies (100%) we can see that it has (Table 6).

7-table.

Analysis of histological results after biopsy obtained with the Pipelle device

Pathohistological types	Glandular hyperplasia	Endometrial polyp	Adenocarcinoma			Atypical hyperplasia	Operative treatment was not performed	Total
			G1	G2	G3			

Glandular hyperplasia		24	2	0	0	0	0	2	28
Polyp		0	4	0	0	0	0	0	4
Adenocarcinoma	G1	0	0	0	0	0	0	0	0
	G2	0	0	0	2	0	0	0	2
	G3	0	0	0	0	6	0	0	6
Atypical hyperplasia		0	0	0	1	1	2	0	4
Total		24	6	0	3	7	2	2	44

Taking a biopsy from the endometrium using a disposable pipelle-urogenital probe: Glandular hyperplasia was detected in 28 women of the IV main group as a result of endometrial sampling using a disposable Pipelle-urogenital probe, 2 women did not undergo surgery, and endometrial polyps was detected in 2 women during histological examination after operative treatment. The diagnosis of glandular hyperplasia was confirmed in the repeated histological examination of 24 women. Endometrial polyps were placed in 4 women using this method, and endometrial

polyps were confirmed in all of these women in the results of histological examination after operative treatment. Adenocarcinoma (G2 - 2 and G3 - 6) was detected in 8 of the women sampled using a disposable Pipelle-urogenital probe, and according to the results after the operative treatment, the diagnosis was confirmed in all patients with adenocarcinoma, and in 2 of the 4 women with atypical hyperplasia adenocarcinoma (G2 and G3) and 2 were diagnosed with atypical hyperplasia (Table 7).

8- table.

Pipelle - diagnostic indicators of the biopsy method

УТТ + Pipelle - биопсия	Endometrial hyperplasia	Endometria l polyp	Adenocarcino ma	Atypical hyperplasi a	P
Sensitivity	100 %	95.67 %	80 %	100 %	0,05
Specificity	80.00 %	100 %	100 %	95.24 %	0,05
Accuracy	90.90 %	96.97 %	95.46 %	95.45 %	0,05
Positive prognostic value	85.69 %	100 %	100 %	79.43 %	0,05
Negative prognostic value	100 %	96.77 %	95.74 %	100 %	0,05

$P \leq 0,05$

IV When analyzing the diagnostic indicators of the Ripelle biopsy method used for endometrial biopsy in our main group, we can see that the sensitivity of this method is high for endometrial glandular hyperplasia and atypical hyperplasia (100%). We can see that the specificity and accuracy indicators are high for endometrial polyps, adenocarcinoma and atypical hyperplasia. The positive prognostic value is 100% for endometrial polyp and adenocarcinoma, while the negative prognostic value is 100% for endometrial glandular hyperplasia and atypical hyperplasia. In general, this method has high diagnostic indicators in endometrial pathologies (Table 8).

CONCLUSION

Endometrial biopsy using a disposable Pipelle-urogenital probe is more sensitive than curettage in detecting endometrial hyperplastic processes and endometrial cancer. The sensitivity of endometrial scraping with the help of a pipelle-urogenital probe in the diagnosis of endometrial cancer was 99.6% in postmenopausal women and 95% in premenopausal women. Its sensitivity for atypical endometrial hyperplasia was 81%. The specificity of all endometrial biopsy methods for endometrial carcinoma is from 91% to 100%, and the specificity of the pipette biopsy method is considered high. Less than 5% of patients in

control groups I and II had to repeat the biopsy by the Pipelle-biopsy method due to incorrect sampling. In addition, comparing the obtained results, we can see that the UTT-guided curettage method is more effective than the UTT-guided Pipelle-biopsy procedure and has relatively fewer complications than the simple Pipelle-biopsy.

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