INGUINAL-PELVIC LYMPH DISSECTION IN THE TREATMENT OF METASTATIC LESION OF REGIONAL LYMPH NODES IN VULVAR CANCER

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Abstract. *Knowledge about the prevalence of the cancer process and its microscopic signs helps to establish the stage of development of the disease, helps to assess the likelihood of tumor recurrence and provides information that will allow the doctor to predict the therapeutic effect. With vulvar cancer, the tumor often spreads along the length and by metastasis to the regional lymph nodes (inguinal, femoral), and then to the pelvic lymph nodes. In malignant tumors, the level of lymph node lesion, which can be determined by lymph node dissection, is of great importance for the choice of treatment method.*
Keywords: *lymphodissection, lymphovascular, invasive lesion, metastatic.*

Introduction. The incidence of RV is less than half a percent of the global incidence of malignant tumors. In 2018, 44,000 new cases of vulvar cancer were registered worldwide, while the number of deaths was about 15,000 cases. It should be noted that the incidence of RV is higher in high-income countries such as Europe, North America and Oceania [1,2,3].

The most important prognostic signs of vulvar carcinoma are the size of the tumor, the depth of invasion, the status of lymph nodes and the presence of distant metastases. Historically, to assess the status of inguinal nodes, it was required to perform a standard inguinal lymphadenectomy for all types of vulvar cancer. However, this procedure is associated with a high risk of developing lymphedema of the lower extremities (approximately 30-70%) in patients who have undergone complete inguinal-femoral lymph dissection, especially in combination with radiation therapy [4,5,6]. In this connection, it is necessary to conduct research in the field of developing criteria for lymphodissection in RV [7].

Materials and methods. The analysis of the results of examination and treatment of 186 patients with vulvar cancer who were treated at the RSNPMTSOIR, the P.A. Herzen Institute of Medical Research – a branch of the Federal State Budgetary Institution "NMIC of Radiology" of the Ministry of Health of Russia (Moscow, Russia), as well as the IstinyeUniversity clinic (Istanbul, Turkey) from 2011 to 2020 was carried out.

With vulvar cancer, the tumor often spreads along the length and by metastasis to the regional lymph nodes (inguinal, femoral), and then to the pelvic lymph nodes. In malignant tumors, the level of lymph node damage is of great importance for the choice of treatment method. Regional distribution occurred in the adjacent areas of the lower third of the vagina, in the rectal ligament. Later, an invasion of the anorectal area developed. The spread to the lymph nodes occurred first in the direction of the inguinal lymph nodes. Metastases to regional, femoral and inguinal lymph nodes were diagnosed in 32.8% of cases. Palpation of the inguinal region can reveal involvement of lymph nodes, but histological data are positive only in 40% of cases with palpable tumors. Lymph nodes affected by metastases out of 61 in 36 (59%) cases were inflamed

and fixed, in this case, although rarely, adenopathy was an alarming symptom. In a large number of cases, the nodes were palpated, often bilaterally, and were displaced.

Patients with a tumor limited only to the vulva or vulva and perineum, measuring 2 cm or less in the largest dimension, with invasion of the underlying tissues up to 1 mm was found in 26.3% of cases.

Isolated lesion of the pelvic lymph nodes is possible when the tumor is localized in the clitoris and areas adjacent to the clitoris. Lymphovascular invasion was detected in 74.7% of patients, vascular invasion in 76.9% of patients. In more than half, the tumor gradation corresponded to G2.

More than 90% of vulvar cancer had a squamous histological form (VSCC – vulvarsquamouscellcarcinoma), in other cases glandular, adenoplastocellular, etc. form.

Inguinal-femoral lymph dissection. This type of surgery is one of the most common type of lymph dissection used in oncological practice. In addition to vulvar tumors, this operation is also performed for various tumors of the lower extremities, genital organs, etc. localizations. The technique of performing this type of operation is well developed. In the traditional version, the operation begins with two semi-oval incisions from the anterior upper surface of the ilium, parallel to the inguinal fold with dissection of the skin and subcutaneous fat. The incision was completed near the tendon of the external oblique abdominal muscle. The skin and adipose tissue were separated from the aponeurosis of the external oblique muscle to the center of the Scarp triangle. The umbilical ligament was crossed, while the fascia of the oblique muscle was removed. Gradually dissecting the fiber from the pubic bone tubercle to the apex of the femoral triangle, a block of tissues was isolated from the fiber and lymph nodes of the femoral triangle and femoral canal. The block was removed by crossing the legs.

Indications for lymphodissection were a tumor located in the clitoris, a tumor larger than 2 cm, invasion of surrounding tissues larger than 5 mm, multifocal tumor growth and low-grade intraepithelial carcinoma G-4.

Results. The operation was performed in 61 (32.8%) patients (Table 3). Out of 61 patients, 23 patients underwent bilateral lymphodissection, which was 37.7% of the total number of patients with inguinal – femoral lymphodissection. Thus, 84 operations were performed to remove lymph nodes from the regional basin.

Distribution of vulvar cancer patients undergoing radical inguinal – femoral lymph dissection.

№	*Clinical characteristics*	*HPV-27*	*HPV+34*
1.	**Stage FIGO**		
	II Stage	19 (%)	14
	III Stage	8 (%)	13 (%)
	IV Stage		7 (%)
2.	**Localization of the tumor**		
	Large labia	9 (%)	11 (%)
	Labia minora	3 (%)	3 (%)
	Back spike	1 (%)	2 (%)
	Periurethral zone	2 (%)	1 (%)
	Clitoris	4 (%)	8(%)

	Several anatomical zones	8 (%)	9 (%)
3.	**Histological type**		
	Squamous cell carcinoma.	19 (%)	22 (%)
	Squamous Intraepithelial neoplasia, Grade 3		
	Adenocarcinoma	7 (%)	12 (%)
		1 (%)	-

Of these, 35 (18.8%) patients underwent surgery in a standard, traditional method, with a wide excision of the skin of the inguinal femoral zone. In 26 patients (13.9%), the operation was performed using endoscopic technique. The operations were performed according to the standard procedure, using endoscopic surgery equipment manufactured by Karl Storz Endoscopie (Germany). A retractor for subcutaneous endoscopic surgery by Bird and Emory (Snowden Pericer, USA) was used to access the adipose tissue space.

The operation to remove lymph nodes from the inguinal – femoral zone does not present great difficulties in performing. Despite the perfection of all aspects of this operation, in the postoperative period, as with other operations, complications associated with the peculiarity of surgical aggression, the peculiarities of the patient's body were observed.

Postoperative complications after inguinal-femoral lymphodissection (n=84)

	Postoperative complications Number of cases	Postoperative complications Number of cases
1.	Suppuration of the wound	17 (20,2%)
2.	Seam divergence	3 (3,6%)
3.	Lymphostasis	9 (10,7%)

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When analyzing the long-term results of lymphodissection, the following features were revealed: in patients with a low-grade histological form of the tumor, with several anatomical lesions, with clitoral lesions, with lymphovascular invasion, 7 (18.4%) of 38 patients who underwent unilateral lymphodissection had metastases of the opposite inguinal zone in the nearest 8 months after surgery.

Conclusion

Thus, the indication for bilateral inguinal – femoral lymph dissection should be, in addition to confirmed metastases in the inguinal region, a low-grade histological form of vulvar cancer, damage to several anatomical zones, lymphovascular invasion of the clitoris.

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