

Paraaortic Lymphadenectomy in Surgical Treatment of Cervical Cancer in FIGO IB Stage of the Disease

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1. Introduction

Precise assessment of lymph nodes status has an important role in diagnosis, prognosis and treatment of women with cervical cancer. Lymphadenectomy followed by histopathological examination of removed lymph nodes is a golden standard in assessment of lymph node status. Aims: Determining diagnostic value of paraaortal lymphadenectomy in lymph node status assessment, and defining high-risk group of patients who have metastases in paraaortal lymph nodes and require adjuvant therapy in FIGO stage IB cervical cancer.

2. Material and methods

Open prospective study was conducted in the period from 2017-2020 in Clinical Center of Vojvodina on 80 patients with histopathologically verified cervical cancer in FIGO stage IB, who met the inclusion criteria of the survey. Systemic bilateral pelvic and paraaortal lymphadenectomy up to the level of left renal vein, with removal of all lymph nodes from all 6 pelvic and 7 paraaortal groups, was performed in all patients. Preoperative assessment of clinical stage of the disease was based on gynecological, rectovaginal and MRI examination of pelvis and abdomen. Postoperative assessment of surgical-pathological stage was based on histopathological examination of surgically removed material and lymph nodes, classified into anatomical groups in pelvic and paraaortal region.

3. Results

Average number of lymph nodes removed by paraaortal lymphadenectomy per patient was 13. Macroscopically enlarged positive lymph nodes (size >1cm) were found in 6 (7.5%) patients. Metastases in paraaortal lymph nodes were found in 8 (10%) patients. The most common localization of lymph metastases was in paraaortal group of lymph nodes. Ratio of inframesenteric and supramesenteric localization of metastases in paraaortal lymph groups was 70:30. In 50% of patients with positive paraaortal lymph nodes, more than 2 paraaortal lymph groups were involved. Bilateral pelvic lymph metastases, metastases in common iliac group of lymph nodes and multiple pelvic lymph metastases are independent predictors of lymph metastases in paraaortal region. Sensitivity of MRI in detection of paraaortal lymph nodes was 38%, and specificity 93%. MRI examination

showed falsely negative results in 5 (6.25%) patients and falsely positive results in 5 (6.25%) patients. Initial treatment plan defined by clinical and MRI findings, was altered based on paraaortal lymphadenectomy results in 10 (12.5%) patients. Average operation length was 188.6 minutes. Overall rate of operative complications was 3%, while postoperative was 11.25%.

4. Conclusions

Open transperitoneal paraaortal lymphadenectomy is a safe procedure, with acceptable rates of intra and postoperative complications. It is indicated in all patients with cervical cancer sized over 2 cm, and below 2 cm if pelvic lymph nodes are positive. Precise surgical-pathological assessment of disease stage is possible only if at least 10 lymph nodes are removed by paraaortal lymphadenectomy up to the level of left renal vein. Histopathological examination of surgically removed aortal lymph nodes can define high-risk group of patients in FIGO stage IB cervical cancer who have metastases in paraaortal lymph nodes, and require adjuvant therapy, which cannot be discovered by other diagnostic methods.

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