

Tumor laterality in early ovarian cancer: influence on left-right asymmetry of pelvic lymph nodes

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ABSTRACT

Aim and background. To determine whether left-right asymmetry was present in cases of early ovarian cancer and whether or not the difference between number of removed lymph nodes on both sides of the pelvis is associated with tumor laterality.

Methods and study design. We extracted from the medical data base cases of early ovarian cancer with lymphadenectomy who had been treated between 1994 and 2008. The sample was divided in three groups according to the left-right laterality of the tumor in the pelvis (bilateral, left sided, right sided). For each case, we subtracted the number of dissected lymph nodes on the left side from the number of dissected lymph nodes on the right side of the pelvis ($N_{\text{Right side}} - N_{\text{Left side}}$). We used one sample t test to determine whether the mean of differences for each group was different from zero.

Results. We extracted 48 cases with early ovarian cancer who had undergone lymphadenectomy. The average number of dissected lymph nodes was 24 (SD, 12). In 3 cases, we confirmed the presence of lymph node metastasis (6.3%). In 2 of the up-staged cases, tumor and involved lymph nodes were on the right side of the pelvis. In the third case, the tumor was on the left side, whereas involved lymph nodes were on both sides of the pelvis. For bilateral tumors, tumors on the left, and those on the right side of the pelvis, the mean difference was -0.5 (95% CI, -9.9 to 8.9; t , -0.137; $P = 0.90$), 0.32 (95% CI, -3.8 to 4.5; t , 0.16; $P = 0.87$) and 3.5 (95% CI, 0.03 to 7.01; t , 2.09; $P = 0.048$), respectively.

Conclusions. When the tumor was on the left or on both sides of the pelvis, there was no significant difference in the number of removed lymph nodes. In contrast, when the tumor was on the right side, the number of removed lymph nodes was significantly higher on the right hemipelvis than on the left hemipelvis. Free full text available at www.tumorionline.it

Key words: early ovarian cancer, left right asymmetry, lymph node distribution, tumor laterality.

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Received January 7, 2010;
accepted May 12, 2010.