Systematic lymphadenectomy and interval debulking surgery: less is more

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The lead article of the month, published by Nasioudis et al, describes the role of systematic lymphadenectomy (SL) in patients with advanced ovarian cancer at the time of interval debulking surgery (IDS).[1]

To date, the oncological benefit of SL in patients undergoing IDS remains unclear, mainly due to the lack of randomized trials, in contrast to what is known for primary debulking surgery. Indeed, the randomized LION trial showed a lymph node metastasis rate of 55.7% in the SL group, with no benefit of lymphadenectomy in terms of overall survival (OS) (lymphadenectomy 65.5 vs no lymphadenectomy 69.2 months, p=0.65) or progression-free survival (PFS) (median 25.5 months in both groups, p=0.29).[2]

Regarding IDS, even the 2024 ESGO-ESMO-ESP consensus conference does not clarify its role, stating that pelvic aortic SL should not be performed in patients who achieve complete abdominal cytoreduction and without suspicion of nodal involvement without distinguishing between patients undergoing primary debulking surgery and IDS.[3]

The study by Nasioudis et al focused on this patient population and included 1060 patients with advanced ovarian cancer from the National Cancer Database who underwent IDS and complete gross resection between 2010 and 2015. The study found that the clinical and prognostic impact of SL was not significant, as survival did not reach significance levels (OS in the SL group was 44.19 months vs 40.38 months in the no-SL group; p=0.4). This was also confirmed in the sub-group of patients who underwent SL, as there was no difference in survival between patients with positive and negative lymph nodes (p=0.12). In terms of peri-operative morbidity, patients who underwent SL had a higher rate of unexpected readmission within 30 days of discharge and a longer hospital stay.

The data highlighted by the study are consistent with the existing literature and further emphasize the secondary role of lymphadenectomy in IDS. Back in 2012, a study by Fagotti et al showed that lymphadenectomy at the time of IDS could be omitted in high-risk patients as there was no difference in 2-year PFS and OS in a population of 151 patients with optimal residual disease.[4]

Further supporting the secondary role of lymphadenectomy in IDS are the results of a recent meta-analysis by Caruso et al. The results again highlighted the lack of survival benefit in the SL group, as the pooled estimated hazard ratios for PFS and OS were 0.88 (95% CI 0.65 to 1.20; p=0.43) and 0.80 (95% CI 0.50 to 1.30; p=0.37), respectively, with a higher number of grade III–IV post-operative complications.[5]

Certainly, the evaluation of a surgical procedure cannot ignore two elements: the prognostic impact that the procedure may have and the clinical impact, evaluated as the rate of post-operative complications. Lymphadenectomy in patients with advanced ovarian cancer undergoing IDS does not confer a prognostic benefit and is associated with a higher risk of post-operative complications and longer hospital stay. Therefore, it currently plays a secondary role and may be omitted in the absence of pre-operative radiological suspicion or incidental lymph node finding during surgery, pending randomized clinical trials that may further confirm this finding.

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