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Mean number of lymph nodes in colonic cancer specimen: possible quality control index for surgical performance

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Lymphatic involvement in colonic cancer explains the need for extensive lymphadenectomy for intended curative operations. Surgical skills may determine the actual extent of the procedure and indirectly the number of lymphnodes (LN) removed from each specimen.

Material and methods: We looked on a series of 329 consecutive patients with colonic cancer who underwent a standardized procedure including extensive lymphadenectomy. The main endpoints were survival as well as the number of LN and the mean number of

Results: Differences in Kaplan-Meyer survival curves between average and high performance colectomies have been identified for right colectomies both in stage II (85.7% vs 64.7%) as well in stage III (71.4% vs 56.5% 5-year survival), and also in stage II for segmental colectomies (85.7% vs 78.9%), showing a definitive advantage in survival for patients operated by surgeons with a mean LN retrieval above cutoff values.

Conclusions: our study suggests that the mean number of LN retrieved from the surgical specimen can be used to evaluate surgical performance in colonic cancer, and may reflect in postoperative survival. However care should be taken when extrapolating these data as surgeon-independent factors such as protocols for LN harvesting may be different in other institutions and will influence results.

Key words: colonic cancer, colectomy, lymph nodes, performance, quality control, survival

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