

## **Should We Plan CME vs non-CME surgery in colon cancer based on preoperative CT?**

### **An observational cohort study**

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### **ABSTRACT**

*Introduction:* tumour specific surgery in colon cancer is gaining popularity among colorectal surgeons. Many advocate adapting surgical technique based on preoperative CT staging as not all patients require complete mesocolic excision (CME) and D3 lymphadenectomy. We aimed to assess the sensitivity and specificity of preoperative CT scans in nodal staging and analyse whether inadequate CT staging could have influenced local recurrences.

*Material and Methods:* a retrospective cohort study was conducted on patients with stage I-III colon cancer who were followed up at our hospital between 2011 and 2019. The clinical and pathological variables and data on locoregional recurrence (LRR) were extracted from the electronic patient file, including imaging data performed as part of the standard oncological follow-up protocol.

*Results:* the overall CT scan accuracy to identify the nodal status was 56.9% with sensitivity and specificity of 60.6% and 52.5%. Overstaging occurred in 95 patients (22%) and understaging in 92 (21%). Among understaged patients, 8 (8.7%) developed nodal LRR.

*Conclusion:* considering that roughly one in three patients with nodal LRR, were underdiagnosed in terms of nodal status, by the preoperative CT assessment, the therapeutic decisions regarding the surgical approach should not be guided by this and CME with central vascular ligation (CVL) should be applied to all patients as a standardized surgical technique.

**Key words:** CT, CME, CVL, colon cancer, D3 lymphadenectomy