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The Use of a Vascular Roadmap at Surgery Evens out Surgeons' Expectations on Operating Time, Blood Loss, Lymph Nodes Harvest and Operative Difficulty when Performing Right Colectomy with Extended D3 Mesenterectomy

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Abstract
Purpose: To determine how individual vascular road-mapping impacts the surgeons' expectations in difficulty in D3 right colectomy for cancer, and compare these expectations to the results previously published.
Aim/summary background data: Literature still lacks data on surgeons' expectations using preoperative 3D roadmap of the vascular system.
Method: Surgeons filled out a survey asking expectations about operation time, estimated blood loss, amount of lymph nodes harvested and difficulty. The patients were classified into 4 groups and 2 subgroups according to the crossing pattern of the ileocolic artery and the jejunal veins. SPSS was used for statistical analysis.
Results: Twelve surgeons were included. Eight of them expected type 2 anatomy to be least time consuming while 11/12 indicated anatomy group 4 to be the most. Five surgeons expected low blood loss in group 2 anatomy patients while 10/12 expected higher blood loss in group 4 anatomy patients. Three anticipated that group 2 would generate the highest lymph node yield and while 2/12 surgeons expected the lowest in anatomy group 4. Eight surgeons perceived group 2 as the least challenging while 10/12 experienced group 4 as the most difficult. Compared to previously published results only group 4b operating time met surgeons' expectations.
Conclusion: Using a vascular roadmap at surgery evens out surgeons expectations' in operation time, blood loss, lymph node harvested and difficulty. Comparing expectations to previously published data shows operating time in one anatomy group as the only factor where these expectations were met.
Key words: right colectomy, colon cancer, image guided surgery, extended D3 mesenterectomy, 3D vascular anatomy, surgical roadmapping