Risk factors associated with incisional surgical site infections following colon cancer surgery

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Background & Aim: Colon surgery has the highest incidence of surgical site infections (SSI). Our aim was to identify potential risk factors for incisional SSI development following colon cancer surgery.

Materials & Methods: A case-control study was conducted including patients who underwent surgery for primary malignant colon tumor and developed a confirmed SSI. Combined rectal resection was the exclusion criterion. Perioperative factors were retrieved from the database of an ongoing prospective study. Statistical analysis was performed by calculating Odds Ratio (OR), while statistical significance was set at p<0.05.

Results: From the first 200 patients, 25 (12.5%) developed a SSI and 9 (34.6 %) of which were poly-microbial. *Escherichia coli* were the most frequently incriminating microorganism. The risk factors associated with developing a SSI were as follows: the occurrence of other post-operative complications (p=0.003, OR=5.68, 95% CI=1.78-18.16), peritoneal contamination (p=0.008, OR=3.69, 95% CI=1.40-9.71), fever upon admission (p=0.04, OR=3.63, 95% CI=0.08-1.98) and re-operation (p=0.04, OR=3.63, 95% CI=1.05-12.55). Two patients (8%) from the case group developed incisional hernias, another two (8%) were re-admitted and three patients (12%) died during their period of hospitalization.

Conclusion: Risk factors associated with SSI, following colon cancer surgery, were the occurrence of other post-operative complications, peritoneal contamination, fever upon admission and re-operation.

Biography

Samantha McKenzie Stancu is a 6th year Medical student at Carol Davila University of Medicine and Pharmacy in Bucharest, Romania. She has attended 64 academic events, earning 52 certificates and is the author of 15 scientific papers which were presented at international conferences. Additionally, she has published 2 articles in peer-reviewed, indexed journals. She serves as the Coordinator of the International Relations department (Romanian Student Surgical Society) and as a Student Ambassador for “Figure 1” Medical application.

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