Abdomen depth and rectus abdominis thickness predict surgical site infection in patients receiving elective radical resections of colon cancer

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Surgical Site Infection (SSI) significantly hampers the benefits of surgical interventions and requires early identification and prediction especially in colorectal surgeries. The aim this study is to investigate the association between abdominal physiological features (including Subcutaneous Fat Thickness (SFT), Rectus Abdominis Thickness (RAT), abdomen depth and the occurrence of SSI in patients receiving elective radical resection of colon cancer. We conducted a retrospective case-control study. 55 patients in SSI and non-SSI groups were collected using propensity score match. Demographics, clinical characteristics, pre- and intra-operative data were compared between groups. Significant elements were subsequently brought into logistic regression and receiver-operating characteristic analysis for further identification. Patients in SSI group exhibited lower preoperative albumin (p=0.0022), higher RAT (p=0.014), AD (p=0.029) and the multiplied value (RAT×AD) (p=0.0026) compared to patients in non-SSI group. RAT×AD was an independent risk factor for SSI (OR=1.007, p<0.001) and could serve as a biomarker for SSI prediction (AUC=0.83, 95% CI: 0.74~0.91) in this cohort of patients. In conclusion, pre-operative rectus abdominis thickness and abdomen depth correlate with the risk of postoperative SSI in patients receiving elective radical resection of colon cancer.

Biography

Song Liu has completed his MD and PhD from Nanjing University and Postdoctoral studies from Massachusetts General Hospital, Harvard Medical School. He is also an Attending Doctor of General Surgery, Nanjing Drum Tower Hospital. He has published 18 papers in scientific journals.

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