Nutritional makers predict the risk of surgical site infection after major oncological surgery for head and neck cancer

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Postoperative surgical site infection (SSI) is a major complication of head and neck surgery, leading to major cause of nosocomial infection and increased medical expenses. The purpose of this study was to examine the risk factors of SSI in patients undergoing major head and neck cancer (HNC) surgery. This study prospectively involved 368 consecutive patients who underwent major oncological surgery for head and neck cancer between September 2010 and December 2015 in our tertiary referral center. The SSIs within 30 days were classified as incision, space or leakage/fistula. Circulating hematological and nutritional parameters were regularly measured before and after surgery. Univariate and multivariate analyses were used to find the significant perioperative risk factors for SSIs. Of these 368 patients, 105 (28.4%) had SSIs: 46 (12.4%), incisional; 6 (1.6%), space; and 53 (14.3%), leakage/fistula. Multiple preoperative and perioperative were significantly associated with the development of SSIs. Multivariate analyses showed that preoperative radiotherapy, BMI and hypoalbuminemia were the independent factors predictive of SSIs. Patients with low serum albumin levels (<3.3 g/L) at preoperative and postoperative two days were increasing risk of SSIs compare to their counterparts. Several patient and laboratory factors can predict the risk of SSI development after major oncological HNC surgery. Our study also shows the nutritional status of patients affect the SSI risk. Based on our findings, future clinical trials might be required to minimize the risk.

Biography
Ho Jin Son has completed his PhD from Kyungpook National University and Postdoctoral studies from Catholic University of Daegu, South Korea. He holds the Fellowship at Asan Medical Center.

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