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## Indocyanine green fluorescence angiography: A new ERAS item

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ERAS protocol and Indocyanine Green Fluorescence Angiography (ICG-FA) represent the new surgical revolution minimizing complications and shortening recovery time in colorectal surgery. As of today, no studies have been published in the literature evaluating the impact of the ICG-FA in the ERAS protocol for the patients suitable for colorectal surgery. The aim of our study was to assess whether the systematic evaluation of intestinal perfusion by ICG-FA could improve patients outcomes when managed with ERAS perioperative protocol, thus reducing surgical complication rate. This is a retrospective case-control study. From March 2014 to April 2017, 182 patients underwent laparoscopic colorectal surgery for benign and malignant diseases. All the patients were enrolled in ERAS protocol. Two groups were created: Group-A comprehended 107 patients managed within the ERAS pathway only and Group-B comprehended 75 patients managed as well as with ERAS pathway plus the intraoperative assessment of intestinal perfusion with ICG-FA. Two board-certified laparoscopic colorectal surgeons jointly performed all procedures. Six (5.6%) clinically relevant Anastomotic Leakages (AL) occurred in Group-A, while there was none in Group-B, demonstrating that ICG-FA integrated in the ERAS protocol can lead to a statistically significant reduction of the AL. Mean operative time between the two groups was not statistically significant. In five cases (6.6%), the demarcation line set by the fluorescence made the surgeon change the resection line previously marked. The prevalence of all other complications did not differ statistically between the two groups. Our study confirms that combination between ICG and ERAS protocol is feasible and safe and reduces the anastomotic leakage, possibly leading to consider ICG-FA as a new ERAS item.

### Biography

Massimo Pezzatini has obtained his Residency Diploma in General Surgery in 2014 from the University of Rome "La Sapienza" and later worked in the University Hospital for several years as a Researcher in the Department of Surgery. Presently he is a part of the Surgical Team of the Surgical Oncology Division of the Regina Apostolorum Hospital in Albano Laziale. He has published more than 25 papers in reputed journals.