

## **The Role of Ileostomy in the Prevention and Treatment of Anastomotic Leakage after Elective Rectal Cancer Surgery**

### **– A Retrospective Analysis of Specific Risk Factors, Outcomes, and Complications**

Elena Luminița Albulescu<sup>1</sup>, Sandu Ramboiu<sup>2\*</sup>, Valeriu Marin Șurlin<sup>2\*</sup>, Dragoș Mărgaritu<sup>2</sup>, Dan Cârțu<sup>2</sup>, Marius Bica<sup>2</sup>, Ștefan Pătrașcu<sup>2</sup>, Daniela Marinescu<sup>2</sup>, Raducu Nemeș<sup>3</sup>, Luminița Cristina Chiutu<sup>4</sup>

<sup>1</sup>Blood Transfusion Unit, Bagdasar-Arseni Hospital, 12 Berceni Street, 041915, Bucharest, Romania  
University of Medicine and Pharmacy of Craiova, 2-4 Petru Rares Street, 200392, Craiova, Dolj, Romania

<sup>2</sup>1st Clinic of Surgery, Clinical County Emergency Hospital of Craiova, 1 Tabaci Street, 200642, Craiova, Dolj, Romania  
University of Medicine and Pharmacy of Craiova, 2-4 Petru Rares Street, 200392, Craiova, Dolj, Romania

<sup>3</sup>University of Medicine and Pharmacy of Craiova, 2-4 Petru Rares Street, 200392, Craiova, Dolj, Romania

<sup>4</sup>I.C.U. Clinic, Clinical County Emergency Hospital of Craiova, 1 Tabaci Street, 200642, Craiova, Dolj, Romania  
University of Medicine and Pharmacy of Craiova, 2-4 Petru Rares Street, 200392, Craiova, Dolj, Romania

## **Abstract**

**Background:** The objective of this paper is to highlight the role and place of ileostomy from the perspective of the risk of anastomotic leakage (AL).

**Materials and method:** This was a retrospective study of 74 (46.54%) low and ultra-low anterior resections from 159 cases of rectal cancer operated on in a seven-year interval (2015–2021). The cases were divided into two groups: Group A with protective ileostomy (47 cases = 63.51%) and Group B without protective ileostomy (27 cases = 35.49%).

**Results:** The type of anastomosis was low colorectal for 15 cases and ileorectal for two cases, both in Group A, with either mechanical or manual sutures. Continuous loop ileostomy was the only fecal diversion procedure used for protection. The ileostomy-specific complications recorded in Group A were peristomal skin lesions (8 cases), early peristomal hernia (2 cases), and severe dehydration with acute renal-insufficiency (7 cases). The closure of the ileostomy was performed in 42 cases (89.36%), with the time between the primary operation and the closure being 4.28 months on average, with limits between 12 days and 10 months. AL treatment was conservative in 13 (76.47%) cases and surgical in four cases, with the types of operations performed at reintervention being take-down of the anastomosis + left terminal colostomy + ileostomy closure in three cases (2 in Group A and 1 in Group B) and terminal ileostomy in one case in Group A.

**Conclusions:** To reduce its specific complications, ileostomy should be performed in well-selected patients. Those with risk factors for leakage include males, the elderly, and those having important comorbidities, neoadjuvant chemoradiotherapy, low tumors below 5 cm from the anal verge, or complete circumferential stenosis and peritumoral inflammatory infiltrate.

**Key words:** ileostomy, rectal cancer surgery, anastomotic leakage