

### **Impact of Surgery and Early Postoperative Outcomes After Radical Gastrectomy for Cancer**

Bogdan Filip<sup>1,2</sup>, Catalin Toma<sup>1</sup>, Mihaela Buna-Arvinte<sup>1,2</sup>, Dragos Viorel Scripcariu<sup>1,2</sup>, Viorel Scripcariu<sup>1,2</sup>

<sup>1</sup>1st Surgical Unit, Regional Institute of Oncology Iasi

<sup>2</sup>Department of Surgery, University of Medicine and Pharmacy "Gr. T. Popa" Iasi

#### **Abstract**

*Background:* Surgery remains one of the most important part of the multimodal treatment of patients diagnosed with gastric cancer. Due to the fact that the consequences in terms of postoperative morbidity can delay the onset of postoperative chemotherapy or even can make the patient unfitted for adjuvant treatment, a thorough clinical evaluation of patient prior to surgery is mandatory.

*Methods:* We performed a retrospective study, which included all the patients diagnosed with gastric cancer in which radical surgery was performed during a 5-year period in a single center. All the patients', tumour and surgery characteristics were used for a risk analysis for the occurrence of overall, medical and surgical complications.

*Results:* There were 189 patients in whom radical surgery was performed, 100 (52.9%) total gastrectomies and 89 (47.1%) subtotal gastrectomies, without difference in term of postoperative morbidity. There were 25 (13.2%) cases of duodenal stump fistula, 15 (15%) cases of esojejunal fistula. On multivariate analysis albumin levels (OR 1.9, p=0.035), hypertension (OR 4.22, p=0.0311) and splenectomy (OR 3.91, p=0.048) were independent factors for overall complications, albumin levels (OR 1.91, p=0.0405), hypertension (OR 3.54, p=0.0444), neoadjuvant treatment (OR 3.97, p=0.01657) and splenectomy (Or 1.66 p=0.05) for medical complications; age (OR 1.71,p=0.044), hypertension (OR 2.22, p=0.045) and albumin levels (OR 1.92, p=0.041) for surgical type complications.

*Conclusions:* Postoperative morbidity after gastrectomy remains one of the most important factors that can impair the effectuation of a multimodal treatment protocol. Comorbidity factors, nutritional status and surgical technique are the key factors that can influence the amount and the consequence of a surgical complication.

**Key words:** gastric cancer, gastrectomy, morbidity, risk factors