

Gastrointestinal tumours in elderly

P. Sperlongano, D. Pisaniello, D. Parmeggiani, A. Piatto, M. De Falco, M. Di Marzo, I. Sordelli, U. Parmeggiani

Department of Anesthesiology, Surgery and Emergency Medicine – V Division of General and Applied Surgery Technology, II University of Naples, Naples, Italy

Abstract. The Authors report their experience concerning 129 cases of gastrointestinal neoplasms (gastric, colonic, anorectal), recorded during the last years among patients aged between 70 and 81 years, who underwent radical surgery. The main issues evaluated were: anaesthesiological risk, stage, post-operative mortality and morbidity. Elderly seems not to be a contraindication, nor a limit for surgery if the patient is correctly and strictly managed pre and post-operatively.

Key words: gastrointestinal tumours, elderly

Introduction

Although data in literature report an higher rate of complications in elderly, nevertheless elderly itself is not a contraindication for surgery.

In this report the Authors analyze morbidity and mortality of patients who underwent surgery for gastrointestinal tumours at the Fifth Unit of General Surgery of the Second University of Naples.

Patient and methods

Our series include 129 patients aged from 70 to 81 years, whose charts were retrospectively reviewed (one to five years after surgery).

The patients showed the following pathologies: 39 gastric tumours (30,2%), 54 colonic tumours (41,9%), and 36 ano-rectal tumours (27,9%) (Tab. 1).

Table 1. Pathologies.

| Tumour | | N. Pz | Surgery | | Stage | | |
|------------|----------------|----------------|--|----------------|-------|----|----|
| Stomach | Cardias | 21 | Total gastrectomy | | 6 | 12 | 3 |
| | Fundus Body | | Subtotal gastrectomy | Billroth I :15 | 3 | 9 | 6 |
| | Antrum | Billroth II :3 | | | | | |
| | | 39 | | | | | |
| Colon | Abscending | 12 | Right hemicolectomy | | - | 9 | 3 |
| | Transverse | 3 | Transverse resection | | - | - | 3 |
| | Descending | 39 | Left hemicolectomy or Hartmann's procedure | | 3 | 12 | 24 |
| | Sigmoid | | | | | | |
| | | 54 | | | | | |
| Ano-rectal | Rectum | 33 | Miles' procedure | | 0 | 15 | 18 |
| | Anus | 3 | | | - | - | 3 |
| | | 36 | | | | | |

Table 2. Operative risk factors

| | |
|-----------------|------------|
| Cardiovasculare | 72 (55.8%) |
| Pulmunar | 69 (53.5%) |
| Metabolic | 21 (16.3%) |
| Kidney failure | 9 (7.0%) |
| Hepatic failure | 30 (23.3%) |

Almost all the patients had one or more risk factors associated for surgery (123/129, Tab. 2).

The risk was evaluated according to the American Society of Anaesthesiology (ASA) Score System, thus grouping patients in five progressive risk scores (Tab. 3).

Almost 23% of patients belonged to the high risk classes (IV and V).

Patients with low performance status accounted for almost 28% in our series, also including associated pathologies such as: intestinal obstruction, hydro-electrolytic disbalances, slimming, haemorrhages, fistulas, perforations etc. Clinical stage of disease was evaluated according to the pT, pN and pM (UICC Classification) either for gastric neoplasm, either for colo-rectal ones.

Results

In table 3, site, clinical stage, anaesthesiological risk and complication rate in our series are showed. Post-operative elapse was regular in 87 patients (67,4%), while complications occurred in the remaining 42 patients (32,6%); only one of these was fatal (Tab. 4).

Table 4. Complications

| Complications | N. | Patients |
|---------------------------|-----|-------------|
| None | 87 | 87 (67.4%) |
| Pulmunar | 15 | 42 (32.6%) |
| Cardiovascular | 12 | |
| Kidney or hepatic failure | 3 | |
| Urinary infection | 9 | |
| Wound infection | 9 | |
| | 135 | 129 (100%)* |

* Two patients showed two associated complications

Discussion

In elderly cardiovascular and/or respiratory affections, instable performance status, compromised metabolism often caused post-operative morbidity and mortality in the past, thus representing a relative and sometimes absolute contraindication to surgery.

Even though we found and higher morbidity in patients aged more than seventy suffering from gastrointestinal tumours (32,6% vs 10% of patients aged between 30 and 70 years), nevertheless morbidity was similar.

It is important to stress that only clinic and pathologic stages affected the therapeutic choice, since the Authors firmly believe that the operative risk can be decreased by an optimal pre and post-operative management of the patient. Only few and severe cardiovascular distresses required recovery in the Intensive Care Unit in the early post-operative period.

Table 3. Site, clinical stage, anaesthesiological risk and complication rate

| Pts. | ASA | Stage | | | Complication | | |
|------|-----|------------|---------------|--------------|--------------|-------|---------|
| | | I Colon | II Stomach | III Colon | Stomach | Colon | Stomach |
| - | I | - | - | - | - | - | - |
| 60 | II | 3 | 3 | 15 | 6 | 30 | 1 |
| 39 | III | - | 3 | 15 | 9 | 9 | 1 |
| 27 | IV | - | 3 | 6 | 6 | 12 | - |
| 3 | V | - | - | - | - | - | 1 |
| 129 | | 12 | 57 | 60 | | | 48 |

Conclusions

The targeted use of parenteral or enteral nutrition (either before, either after surgery), together with hydro-electrolytic and physiotherapeutic balancement, with continuous check of life parameters, allowed a considerable decrease of the operative mortality in our patients.

In accordance with data of literature, our results seem to confirm that elderly age affects general complications, but not overall post-operative mortality.

References

1. Bader TF. Colorectal cancer in patients older than 75 years of age. *Dis Colon Rectum* 1986; 29: 278-81.
2. Bittner R, Schirrow H, Butters M, et al. Total gastrectomy. A 15 years experience with particular reference to the patient over 70 years of age. *Arch Surg* 1985; 120: 1120-5.
3. Calabrese CT, Adams YG, Volk H. Geriatric colon cancer. *Am J Surg* 1973; 125: 181-5.
4. Denney JL, Denson S: Risk of surgery in patients over 90. *Geriatrics* 1972; 1: 115-8.
5. Greenburg AG, Saik RP, Pridhan D. Influence of age on mortality of colon surgery. *Am J Surg* 1985; 150: 65-71.
6. Linn BS, Linn MW. Evaluation of results of surgical procedures in the elderly. *Ann Surg* 1982; 195: 90-6.
7. Mitsudomi T, Matsusaka T, Wakasugi K, et al. Clinico-pathological study of gastric cancer with special reference to age of the patients: analysis of 1630 cases. *World J Surg* 1989; 13: 225-31.
8. Payne JE, Chapuis PH, Pheils MT. Surgery of the large bowel cancer in people aged 75 years and older. *Dis Colon Rectum* 1986; 29: 733-7.
9. Park DJ, Lee HJ, Kim HH, Yang HK, Lee KU, Choe KJ. Predictors of operative mortality in gastric cancer surgery. *Br J Surg* 2005; 1: 56-61.
10. Pacelli F, Tortorelli AP, Papa V, et al. Gastrointestinal stromal tumours of the stomach: personal experience. *Chir Ital* 2005; 57 (1): 1-8.
11. Jansse-HeijnEN ML, Houterman S, Lemmens VE, Louwman MW, Maas HA, Coebergh JW. Prognostic impact of increasing age and co-morbidity in cancer patients: a population-based approach. *Crit Rev Oncol Hematol* 2005; 23: 67-71.