The impact of gastrointestinal tract resection in oral drug absorption

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BACKGROUND

✓ Gastrointestinal tract resection results in a range of physiological changes that affect the absorption of nutrients, water, and electrolytes. These changes may also affect the absorption of orally medication reducing its effect.

✓ The highly heterogeneous of gastrointestinal tract resection patients makes individual monitoring necessary to ensure an optimal clinical effect.

RESULTS

✓ 249 patients undergoing surgery were included (106 women) with a mean age of 57.6 years [16-90])
✓ 35 (14%) patients had gastrointestinal tract resection (mean age 58 years [24-84])
✓ Total/partial colectomy and partial gastrectomy were the most frequent gastrointestinal resections (Figure 1)

Figure 1. Gastrointestinal resections

7 (20%) patients were treated with oral medication which pharmacological effect may be reduced after gastrointestinal resection (Table 1).

PURPOSE

✓ To determinate the incidence of patients with gastrointestinal tract resection.
✓ To evaluate the proportion of patients with oral medication, which absorption may be affected after gastrointestinal tract resection.

MATERIAL AND METHODS

✓ Observational prospective study of patients undergoing gastrointestinal surgery in a third-level hospital.
✓ All patients undergoing general surgery during October 2010 were collected, selecting those with gastrointestinal tract resection.
✓ Data were obtained prospectively from medical records.
✓ Data collected were:
  ✓ Demographics: age and sex
  ✓ Before and after admission pharmacological treatment: drug, dosage and drug formulation
  ✓ Surgery information: site of resection
✓ A bibliographic research was made to establish how gastrointestinal tract resection could affect the clinical efficacy of drugs.

CONCLUSIONS

✓ There were few patients treated with drugs affected by gastrointestinal resection. However, they should be closely monitored.
✓ There is limited and scarce up-dated literature regarding clinical outcome of drug efficacy in these patients. We should keep in mind those patients with gastrointestinal resection and poor pharmacological response.

BIBLIOGRAPHY

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