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Original Article

# Usefulness of early colonoscopy in the diagnosis and treatment of moderate or severe lower gastrointestinal bleeding

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ABSTRACT

A total of 38,686 colonoscopies were performed between January 1985 and December 2012 at Hospital Sírio-Libanês, in São Paulo, Brazil. Two hundred thirty-four patients (0.6%) had acute lower gastrointestinal bleeding of moderate or severe intensity. A definitive diagnosis was possible in 151 cases, 64.5% of these patients.

This study was approved by the Institutional Review Board. Medical charts were reviewed.

All examinations were done under sedation by the same medical team.

The predominant sources of bleeding were colonic diverticula (73 patients; 31%), ischemic or infectious colitis (18 patients; 7.7%) and radiation proctitis (18 patients; 7.7%).

A specific therapeutic intervention was performed on 61 of the 151 patients who had the diagnosis confirmed (40.4%), according to the source of bleeding. Most patients with post-polypectomy bleeding were treated with injection of epinephrine (40%) and clipping (40%). Patients with angiodysplasia were treated predominantly with argon plasma coagulation (42%).

Injection of epinephrine was the most frequent treatment, regardless of the source of bleeding (34.4%), followed by argon plasma coagulation (31.1%).

Control of active hemorrhage was achieved endoscopically in 98.8% of the patients.

Our data shows that early colonoscopy in the management of patients with suspected acute lower gastrointestinal bleeding is a useful tool for diagnosis and treatment.





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## Utilidade da colonoscopia precoce no diagnóstico e tratamento do sangramento gastrointestinal baixo moderado ou grave

*Palavras-chave:*
Sangramento gastrointestinal baixo
Colonoscopia
Tratamento endoscópico
Preparação intestinal

RESUMO

No total, 38.686 colonoscopias foram realizadas entre janeiro de 1985 e dezembro de 2012 no Hospital Sírio-Libanês, em São Paulo, Brasil. 234 pacientes (0,6%) sofriam de sangramento gastrointestinal baixo agudo (SGIBA) de intensidade moderada ou grave. Em 151 casos (64,5% desses pacientes) foi possível estabelecer um diagnóstico definitivo.

O estudo foi aprovado pelo Comitê de Revisão Institucional. Os prontuários clínicos foram revisados.

Todos os exames foram realizados com o paciente sedado e pela mesma equipe clínica.

As origens predominantes de sangramento foram divertículos colônicos (73 pacientes; 31%), colite isquêmica ou infecciosa (18 pacientes; 7,7%) e proctite por radiação (18 pacientes; 7,7%).

Uma intervenção terapêutica específica foi realizada em 61 dos 151 pacientes com diagnóstico confirmado (40,4%), de acordo com a origem do sangramento. Em sua maioria, os pacientes com sangramento pós-polipectomia foram tratados com injeção de adrenalina (40%) e por *clipping* (40%). Os pacientes com angiodisplasia foram tratados predominantemente com coagulação com plasma de argônio (42%).

O tratamento mais frequentemente administrado foi a injeção de adrenalina, independentemente da origem do sangramento (34,4%), seguida pela coagulação com plasma de argônio (31,1%).

O controle da hemorragia ativa foi obtido por via endoscópica em 98,8% dos pacientes. Nossos dados revelam que o uso precoce da colonoscopia no tratamento de pacientes com suspeita de SGIBA é instrumento útil para o diagnóstico e tratamento.



## Introduction

Acute lower gastrointestinal bleeding (ALGIB) is still a diagnostic and therapeutic challenge. In clinical practice, ALGIB can be defined as any gastrointestinal bleeding of recent onset (within the last 12–24 h) originating beyond the ileocecal valve. This bleeding may lead to systemic manifestations, such as hemodynamic instability, anemia, and the need for blood transfusion.[1] Patients with ALGIB present with rectal bleeding or melena, depending on the volume of bleeding and the speed of colonic transit. In some patients, there may be abdominal pain and hemodynamic instability. Anemia characterizes more severe cases. There are some data from clinical history that may suggest the cause of bleeding. For example, the use of aspirin or non-steroidal anti-inflammatory drugs is often associated with ALGIB, due mainly to diverticular disease, as well as with upper gastrointestinal bleeding (UGIB). Patients with acute colonic ischemia usually present rapid onset of mild abdominal pain and tenderness over the affected bowel, most often involving the left side. Mild to moderate amounts of rectal bleeding or bloody diarrhea usually develop within 24 h of the onset of abdominal pain. In patients with a history of prostate cancer or cervical cancer, it may be related to actinic proctitis, even if irradiation preceded the bleeding by many years. A history of recent polypectomy should guide the investigation of ALGIB toward the point of resection.[2]

The clinical consequences of ALGIB are variable and dependent upon the intensity of the bleeding and on patient baseline clinical conditions. About half of patients present anemia and hemodynamic compromise; however, these changes are less evident in patients with ALGIB than in those with UGIB.[3] Studies describe clinical predictors of ALGIB severity: heart rate >100 beats/min, systolic blood pressure <100 mmHg, active rectal bleeding during the first 4 h of observation, and initial hematocrit <35%.[4,5]

The incidence of ALGIB is estimated at 20 cases per 100,000 adults, which represents one quarter to one third of patients hospitalized for gastrointestinal bleeding.[6] However, ALGIB more commonly affects the elderly, with an incidence as high as 200 per 100,000 of those in their ninth decade of life. The case-fatality rate for patients with ALGIB is 3.6% and patients with active bleeding during hospitalization have a higher risk of death.[7]

Bleeding tends to be self-limited and to stop spontaneously in about 80% of cases.[8] Once the bleeding stops spontaneously, elective colonoscopy is indicated. In those patients who keep bleeding, the diagnosis should be done regardless of the hemorrhage. Although colonoscopy has been considered impracticable due to the frequent impossibility of colon cleaning, more recent data show that this procedure is feasible and allows for diagnosis in most cases.[9] Colonoscopy has repeatedly been shown to be safe, effective, and useful, especially when done in the first 12–24 h after admission.[10] Colonoscopy generally has complication rates below 3% and high



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