Clinical question: what is the role of colonoscopy in the diagnosis of ischemic colitis?
- Cochrane Database of Systematic Reviews
- Database of Abstracts of Review of Effect (DARE)
- ACP Journal Club
- Bandolier
- bmjupdates
- "Evidence-Based"..Journal series
- Systematic Reviews
- Critically-Appraised Topics
- Critically-Appraised Individual Articles
- Randomized Controlled Trials (RCTs)
- Cohort Studies
- Case-Controlled Studies Case Series / Reports
- Background Information / Expert Opinion
- Clinical Evidence
- National Guideline Clearinghouse
- PIER
- Original Research found in MEDLINE & other databases
- UpToDate
- eMedicine
- Harrisons Online
- ACP Medicine
Filtered resources, which appraise the quality of studies and often make recommendations for practice, include the following:

**Systematic reviews:** ask a specific clinical question, perform a comprehensive literature search, eliminate the poorly done studies and attempt to make practice recommendations based on the well done studies.

**Meta-analyses:** systematic reviews that combines results from multiple studies into a single statistical analysis.

**Critically-appraised topics:** evaluate and synthesize multiple research studies.

**Critically-appraised individual articles:** evaluate and synopsize individual research studies.
Filtered resources consulted (no results):

**TRIP (Turning Research Into Practice):** Searches evidence-based sources of systematic reviews, practice guidelines, and critically-appraised topics and articles (including Medline’s Clinical Queries, medical image databases, e-textbooks, and patient information leaflets).

**Cochrane Database of Systematic Reviews:** Consists of detailed, structured topic reviews of hundreds of articles. Teams of experts complete comprehensive literature reviews, evaluate the literature, and present summaries of the findings of the best studies.

**The Database of Abstracts of Reviews of Effect (DARE):** Full-text database containing structured abstracts of systematic reviews from a variety of medical journals.
PubMed: bibliographic information primarily from Medline (extensive coverage of the world's biomedical journal literature from the National Library of Medicine), PreMedline (in-process citations), and publisher-supplied citations.

PubMed search results:

<table>
<thead>
<tr>
<th>Search term</th>
<th>Results</th>
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</thead>
<tbody>
<tr>
<td>1. Colonoscopy</td>
<td>15498</td>
</tr>
<tr>
<td>2. Ischemic colitis</td>
<td>924</td>
</tr>
<tr>
<td>3. 1 and 2</td>
<td>167</td>
</tr>
<tr>
<td>4. Limit 3 to English</td>
<td>114</td>
</tr>
<tr>
<td>5. Limit 4 to reviews</td>
<td>16</td>
</tr>
</tbody>
</table>

No randomized or non-randomized controlled trials
No case control studies

**Method:** Retrospective data analysis from patients diagnosed with ischemic colitis by colonoscopy.

**Conclusion:** Evaluation of the mucosal severities and the extent of the disease by colonoscopy may be helpful in predicting clinical status and the prognosis of the patients.

“Colonoscopy has largely supplanted barium enema as the diagnostic modality of choice because of its higher sensitivity for detecting mucosal changes and the ability to obtain biopsy specimens if necessary… Care should be taken to avoid overinflation or advancement of the colonoscope beyond the affected region to minimize the risk of bowel perforation”

No references for these statements
Colonoscopy is preferred over barium enema because of higher sensitivity; the ability to obtain mucosal biopsy specimens to exclude other pathologic entities; and the ability to perform subsequent angiography, which is indicated when superior mesenteric arteriopathy is suspected… The colonoscopist should exercise caution in colonic insufflation because high intraluminal pressure diminishes intestinal perfusion. With frank necrosis, colonoscopy reveals cyanotic, dusky, gray or black mucosa. The colonoscopist should discontinue colonoscopic intubation when encountering necrotic bowel because of the risk of perforation.”

Reference:

“The definitive diagnosis of ischemic colitis is most frequently obtained by endoscopic examination. Endoscopy can also be used to grade the severity of the disease… Caution should be exercised in advancing the scope beyond areas of marked necrosis for fear of iatrogenic perforation. The appearance of the colon at endoscopy may be difficult to distinguish from that of other forms of colitis such as Crohn’s or ulcerative colitis, infectious colitis, or radiation colitis. Biopsy for histologic examination can be helpful in the differential diagnosis.”

UptoDate:

“Colonoscopy or sigmoidoscopy is often required to establish the diagnosis of ischemic colitis. They are usually performed without bowel preparation (to avoid reducing blood flow from dehydrating cathartics), and with minimization of air insufflation (to avoid distention and perforation). Colonoscopy is preferable to contrast enemas since it is more sensitive in detecting mucosal lesions, permits biopsies to be obtained, and does not interfere with subsequent angiography.”

No references for these statements
“Over the last 25 years, colonoscopy has replaced barium enema as the most common diagnostic tool and not only allows direct visualization of the mucosa, but has the additional benefit of tissue sampling. With the rare exception of mucosal gangrene, however, biopsy findings usually are not helpful and show only nonspecific abnormalities.”

References (not available on-line):


“Diagnosis *(of colonic ischemia)* is by colonoscopy or barium enema, and mesenteric angiography plays little role in diagnosis unless only the right side of the colon is affected or the individual has more pain than is customarily seen with CI.”

No references (position statement)
“Colonic Ischemia”
UpToDate

Normal sigmoid colon

Endoscopic appearance of the normal sigmoid colonic mucosa. The fine vasculature is easily visible and the surface is shiny and smooth. The folds are of normal thickness. Courtesy of James B McGee, MD.

Ischemic colitis

Endoscopy of ischemic colitis may reveal continuous necrosis and mucosal friability that resembles ulcerative colitis (left panel); discrete ulcers with surrounding edema may also be seen (right panel). Courtesy of James B McGee, MD.