

P261. Estimation of bowel stenosis degree in women with colorectal endometriosis: a prospective comparative study

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Context

Colorectal involvement by endometriosis results in alterations of bowel habits such as constipation, diarrhea, and dyschezia. A precise diagnosis about the presence, location, and extent of the disease is necessary to plan the most appropriate treatment.

Objectives

To compare the precision of different imaging methods for the estimation of the degree of stenosis of the bowel lumen in women affected by colorectal endometriosis.

Patients

Forty-three women with recto sigmoid endometriosis who underwent segmental bowel resection.

Methods

In this prospective study, the following exams estimated preoperatively the percentage of bowel stenosis: transvaginal ultrasonography (TVS), rectal water contrast transvaginal ultrasonography (RWC-TV), magnetic resonance enema (MRI-e) and computed tomographic colonography (CTC). The physicians who performed the exams were blinded to the results of the other imaging techniques. After performing surgery, the specimens were evaluated by the pathologist. Areas of interest were marked with suture threads. Large bowel specimens were stuffed with 10% buffered formalin-soaked paper rolls to maintain the anatomic integrity and to reduce shrinkage artefacts; they were then routinely fixed for 12–18 hours. After being sectioned transversally, selected areas were embedded in paraffin maintaining the anatomic shape and cut with the microtome to obtain 3–5 mm thick whole-mount sections of the large bowel. A microscope eyepiece reticule was used to obtain measures. There were compared imaging findings and pathologic examination results.

Main outcome

At pathology examination, the mean (\pm SD) length of the resected bowel stenosis was 10.9 (\pm 1.9) cm; the mean (\pm SD) largest diameter and volume of the largest nodule were 34.2 (\pm 5.9) mm and 10.6 (\pm 5.8) cm³, respectively. The mean (\pm SD) degree of the stenosis of the bowel lumen was 64.1% (\pm 15.6%).

Results

The Kruskal-Wallis one-way analysis of variance on ranks demonstrated that the imaging methods had different precision in estimating the bowel stenosis degree ($p < 0.001$). The Tukey test showed that CTC was more precise than other methods in estimating the bowel stenosis degree ($p < 0.05$), while MRI-e was more precise than TVS ($p < 0.05$).

Conclusions

CTC results more precise than TVS, RWC-TVS and MRI-e in estimating the degree of stenosis of the bowel lumen in women with colorectal endometriosis.

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