Patients With Acromegaly Have Longer Colons and are More Difficult to Colonoscope Than Normals

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Background

A previous barium enema study suggested that patients with acromegaly have longer colons than normal patients and therefore might be more difficult to colonoscope 1.

We have previously used a combination of magnetic endoscope imaging (MEI) and specially developed software to accurately measure the lengths of different sections of the colon at the time of colonoscopy 2.

Aims

To establish if acromegalic colons are significantly longer than normal and, if so, whether colonoscopy is any more difficult.

Methods and Results

We used our MEI system in a series of 25 patients with acromegaly (AP) and 45 patients without acromegaly (NP) who were colonscoped by a single experienced endoscopist (JEP).

One MEI image was stored per second for later analysis. Two of us (GDB and RSR) used specially modified software 4,5 to measure the following:

1. length of rectum and anal canal combined
2. length of anus to sigmoid descending junction
3. length of descending colon
4. length from anus to point when splenic flexure first reached
5. length of transverse colon from splenic flexure to point when hepatic flexure first reached
6. length from anus to caecum after shortening
7. maximum length of colonoscope inserted at any stage of procedure
8. time in seconds to pass from anus to splenic flexure b) traverse the transverse colon and c) go from anus to caecal pole.

The acromegalic patients took longer to colonoscope, had longer colons and formed more complex pelvic loops – please see figures 1 - 4 and the table. Total colonoscopy was recorded in 21 (84%) AP and in 43 (95.6%) NP using MEI.

The median maximum length of colonoscope inserted was 127.5cm (110-155.1) in AP compared to 116cm (105-120) in NP (p=0.0023). The greatest difference was in the median length of colonoscope inserted to reach the sigmoid-descending junction, 78.5cm (62.9-94.1) in AP compared to 51.3cm (42.4-61.5) in NP (p<0.0001). The median time to the caecum was 772sec (613.5-1063) in AP compared to 563.5sec (400.8-853.6) in NP (p=0.0267, Mann Whitney U).

Conclusion

Patients with acromegaly are more difficult to colonoscope than normal patients because they have longer colons, which are more prone to loop formation.

These patients should be colonscoped by experienced colonoscopists using full length instruments. Where possible, access to either screening facilities or MEI is recommended so that a stiffening overtube can be used if necessary.

References