Incidence and Significance of a Previous Hysterectomy in Women Attending for Endoscopic Investigation of Lower GI Symptoms

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Background
The incidence of hysterectomy in women with lower GI symptoms attending for flexible sigmoidoscopy and its effect on the success rate of the procedure has not been formally studied.

Many endoscopy units, including our own do not possess a 60 cm flexible sigmoidoscope but instead use either an adult 165 cm long or paediatric 130 cm long colonoscope for the purpose.

Women tend to experience more pain during flexible sigmoidoscopy than men and their median insertion depth is lower 1.

Aims
Firstly, to prospectively estimate hysterectomy incidence in women attending a “fast track” endoscopy list with lower GI symptoms. Secondly, observe if the success rate for flexible sigmoidoscopy was affected by having had previous pelvic surgery. Thirdly, ascertain whether there were any detectable differences in onset of pain/discomfort relative to depth of insertion. Fourthly, see if pelvic loop size/configuration between women with (HY+ve) or without (HY-ve) a hysterectomy history differed. Fifthly, to see if there was any advantage in terms of median depth of insertion to using a paediatric endoscope in HY+ve women.

Methods
Over a 12 month period, a single experienced endoscopist (GDB) carried out 2 “fast track” surgical endoscopy lists per week. Non-sedated flexible sigmoidoscopy was carried out using either 165 cm full-length adult (Olympus CF230L or CF240L) or 130 cm paediatric instruments (Olympus PCF240L). The flexural rigidity of the 3 instruments was determined as described elsewhere 2.

Two hundred women underwent non-sedated flexible sigmoidoscopy of whom 54 (27%) were HY+ve. In 93 of the 200 female patients we used mechanical endoscopic imaging (MEI)3 combined with a panometer 4. We asked each patient to let us know as soon as any significant pain/discomfort was experienced for the first time.

Results
One of us (SD) retrospectively analysed all the MEI files without knowledge to a) which endoscope had been used and b) whether the patient had or had not had a previous hysterectomy. We recorded the number of cm of endoscope inserted before pain/discomfort was first felt as well as diameter (cm) across any loops formed in the sigmoid at the time that pain was first experienced.

The failure rate (as defined not reaching to at least the sigmoid/descending colon junction) was significantly higher (p=0.0271) in the HY+ve group (16/54 or 30%) compared with the HY-ve group (19/146 or 13%).

As can be seen from Figure 1 and Tables 1 and 2, women who had a previous hysterectomy were more likely to have relatively tight spiral “pigs tail” loops. The mean distance of endoscope inserted before pain/discomfort was first experienced was significantly less in women with a hysterectomy. Furthermore, the diameter of the loops was significantly smaller in HY+ve women. In women who were HY+ve the mean insertion depth before pain was first experienced was significantly greater (p=0.0034) if a paediatric instrument was used.

Conclusions
Over 25% of female patients attending a surgical “fast track” flexible sigmoidoscopy session with lower GI symptoms investigations will have had a previous hysterectomy. These patients frequently formed tighter and at times quite bizarre sigmoid loops as the endoscope was inserted. We presume that this formation is secondary to either pelvic adhesions and/or a roomier pelvic cavity consequent to there no longer being a uterus. The PCF240L Olympus paediatric colonoscope was significantly floppier than the two adult colonoscopes used in this study (Olympus CF230L and CF240L) see Figure 3. The flopper paediatric would appear to offer distinct advantages to the 25% of women attending for flexible sigmoidoscopy who had a previous hysterectomy.

References