

The addition of castor oil as a booster in colon capsule regimens significantly improves completion rates and polyp detection.

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Introduction & Aim:

- Incomplete excretion rates are problematic for colon capsule endoscopy (CCE) and widely available booster regimens perform poorly.
- This is highlighted in our study, presented at the “Polyp detection and resection: Getting it right!” UEG session, which reported a 70% excretion rate.
- Recently published same day CCE protocol using castor oil appeared effective in an IBD cohort with up to 93.9% excretion rates¹.
- Our aim was to assess the effectiveness of adding castor oil as an additional booster in our CCE practice in an unselected cohort.

1 week before	Stop iron tablets.
2 days before	4 x 7.5mg Senna tablets at 7pm.
1 day before	<ul style="list-style-type: none"> • Liquid diet throughout the day (includes black tea, black coffee, clear broth, soft drinks, jelly, ice cream etc.) • Drink at least 10 glasses of water throughout the day. • 7pm Sachet A+B Moviprep with 1L water. • Clear fluids only from midnight.
Test day (morning)	<ul style="list-style-type: none"> • Essential medications may be taken with sips of water. • 7am Sachet A+B Moviprep with 1L water. Please bring own empty water bottle/container to the department • On arrival to the department, the recorder is attached and the capsule swallowed. You will need to wait in the department for up to 30 minutes to allow the capsule to pass into the small bowel when the 1st booster can be given. • 1st booster prepared by a member of our team: 750mls of Moviprep (A+B) plus 750mls of water. The remaining 250mls are kept for second booster in the empty water bottle/container • You can now drink clear fluids freely.
Test day (3 hours after 1st booster)	<ul style="list-style-type: none"> • 2nd booster taken: take the remaining 250mls of Moviprep from the water bottle/container plus 250mls of water. • You can now eat and drink as normal and take your regular medications.
Test day (2 hours after 2nd booster)	If you haven't seen the capsule pass by now, please take the prescribed rectal suppository (Dulcolax)
After test	<ul style="list-style-type: none"> • Remove the belt when the capsule passes or the battery runs out. • Return the data monitor and sensor belt to the department the next day in the envelope provided.

Fig 1

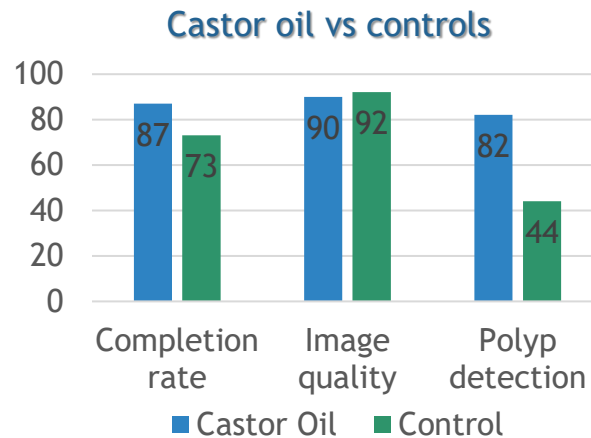


Fig 2

Method:

- All patients received split bowel preparation with Moviprep® prior to CCE procedures.
- Control booster regimen included 750ml of Moviprep® with 750ml of water (booster 1) on reaching the small bowel, a further 250ml of Moviprep® with 250ml of water 3 hours later and a bisacodyl suppository 10mg after 8 hours, if not excreted (Figure 1).
- Cases followed the same regimen with the addition of 15ml castor oil given with booster 1.
- A nested case control design with 2:1 (control: case) ratio was employed.

- Basic demographics, completion rates (passing the dentate line), image quality, transit time, polyp detection and side effects were compared between groups, using t or chi² tests as appropriate (Figure 2).

Results:

- Overall, 186 CCEs were completed including 62 cases (castor oil).
- Mean age was 60 years (18-97).
- 56% were females (n=104).
- Cases and controls were matched for age and gender.
- Overall CCE completion was 77% (144/186), image quality was adequate/diagnostic in 91% (170/186).
- Mean colonic transit time was 3.5 hours, with a range of 0.25-13 hours.
- Polyp detection rate was 57% (106/186).

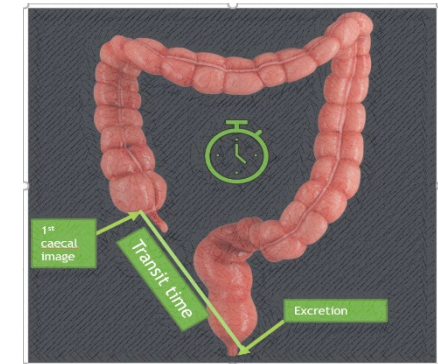


Fig 3

- Completion rates were significantly higher with castor oil, 87% cases (54/62) vs 73% controls (90/124), $p=0.01$.
- Image quality was similar, reported as adequate/diagnostic in 90% (56/62) vs 92% (114/124), respectively.
- Similarly, polyp detection rates were higher 82% (51/62) vs 44% (55/124), $p=0.0001$, with an OR of 5.8, 95%CI 2.77-12.21.
- Colonic transit times were similar, 3.2 and 3.8 hours, respectively in complete studies (Figure 3).
- Of note, there were no additional reported side effects with castor oil.

Conclusion:

- In our unselected cohort, castor oil addition as a CCE booster significantly improved completion rates and polyp detection.