Tap Water Lavage At Sigmoid Colon: A Simple and Effective Method to Decrease Cecal Inubation Time

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Introduction: Colonoscopy has been proved as most effective procedure to screen patients for colorectal cancer. Screening at appropriate time helps early detection of cancer and decreases mortality. Various techniques have developed to ease the passage of the flexible scope through the sigmoid colon bent and ease the spasm associated with the procedure. A simple means to achieve this is with warm water instead of antispasmodic agents as in previous studies. This study has evaluated cecal intubation time with 120 cc room temperature tap water lavage at sigmoid colon and its effect on colon spasm. Methods: A prospective randomized trial using 115 patients undergoing colonoscopies was done. Exclusion criteria were sigmoid colon stricture, sigmoidectomy, irritable bowel syndrome, diabetic gastroparesis and thyroid dysfunction. 13 patients were excluded. 102 patients (51 males: 51 females-mean age 56.3[range 23-81 years]) undergoing screening or therapeutic colonoscopies were split into 2 groups- Group A- receiving lavage and group Bthose not receiving lavage undergoing standard colonoscopy. The degree of spasm during procedure and the cecal intubation time with total colonoscopy time was noted. Results: Patients receiving lavage (Group A) reached the cecum earlier than those not receiving the lavage (Group B) [$P < 0.05$, Mean in lavage-242.4 sec vs. mean in no lavage 261.3 sec]. Further interesting findings were patients who underwent previous abdominal or pelvic surgeries had longer cecal intubation times than those who did not, [$P < 0.05$, mean of non surgical 229.6 sec vs. mean surgical 262.3 sec) irrespective of the lavage. Mean time for cecal intubation in moderate colon spasm was 323 sec with no lavage and 277 sec with lavage (a difference of 16%), however this was not statistically significant pertaining to the sample size (18 patients with moderate spasm). Conclusion: Water helps decrease the shearing force between the flexible scope and the colon wall helping the scope pass through the whole colon giving a glistening effect especially to a spastic colon.

Our data suggests that sigmoid colon lavage does decrease the time to cecal intubation regardless of the indication. In addition we recommend water lavage for patients with history of any kind of abdominal surgeries. Spasm of the colon is rare, we hypothesize that enrolling more number of patients in the study will prove an affect in overcoming spasm with sigmoid colon lavage. Water is a simple and effective means of lubrication and helps the endoscopist and the patient a faster and easier colonoscopy thereby reducing patient discomfort and increasing the patient compliance.