

## Question 6 – Week of March 24

Chromoendoscopy refers to the use of endoscopic stains to enhance the detection and evaluation of lesions in the gastrointestinal tract. Which of the following is true about the use of chromoendoscopy?

- A. Once indigo carmine or methylene blue are sprayed onto the colonic mucosa they are absorbed by epithelial cells.
- B. Magnifying endoscopy is required to be used in conjunction with indigo carmine to visualize nuclear stratification of epithelial cells.
- C. Methylene blue has been shown to significantly increase the detection rate of flat dysplasia in individuals with ulcerative colitis.
- D. The surface pit pattern cannot distinguish hyperplastic from adenomatous polyps.

**Answer: C**

Indigo carmine (IC) is not absorbed by surface epithelial cells as methylene blue is. IC is only a contrast agent which highlights surface irregularities. Neither chromoendoscopy nor magnifying endoscopy can identify the nucleus. However they do allow for evaluation of pit patterns and aberrant crypt foci. Hyperplastic polyps can be distinguished from adenomatous polyps on the basis of their pit pattern. Methylene blue has been shown in several studies to increase the detection rate of intra-epithelial dysplasia in ulcerative colitis.

### References:

1. Acosta M, Boyce W. Chromoendoscopy: Where it is useful? *J Clin Gastroenterol* 1998;27:13-20.
2. Axelrad A, Fleischer D, Geller A, et al. High resolution chromoendoscopy for the diagnosis of diminutive colon polyp: Implications for colon cancer screening. *Gastroenterology* 1996;110:1253-58.
3. Kiesslich R, Fritsch J, Holtmann M, et al. Methylene blue aided chromoendoscopy for the detection of intra-epithelial neoplasia and colon cancer in ulcerative colitis. *Gastroenterology* 2003;124:880-8.