



CHROMOCOLONOSCOPY WITH METHYLENE BLUE - IS IT WORTHWHILE?

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Introduction:

Chromodiagnostics in colon is being increasingly popular among western endoscopists. In our study we decided to evaluate benefits of total chromocolonoscopy with methylene blue in detection of superficial neoplastic colonic and rectal lesions.

Methods:

We examined 41 patients (27 males, 14 females, mean age 61 years). Inclusion criteria were good colonic preparation and age over 50. Our group consisted of patients with various risks of colorectal cancer. In all patients endoscope was introduced in the cecum. Subsequently all segments of the colon and rectum were examined. We used 0,1% methylen blue solution for dye spraying. In each colonic segment all visible lesions were described before and after dye spraying. Biopsies were performed on every lesion. The Paris endoscopic classification for superficial neoplastic lesions was used. Lesions were evaluated as neoplastic (adenomas) and non-neoplastic (hyperplastic, lipoma, inflammatory etc.). Advanced adenoma was defined as adenoma with size over 10mm, with severe dysplasia or more than 20% of vilous component.



Fig. 1.: Barely visible flat adenoma with moderate dysplasia in sigmoid colon

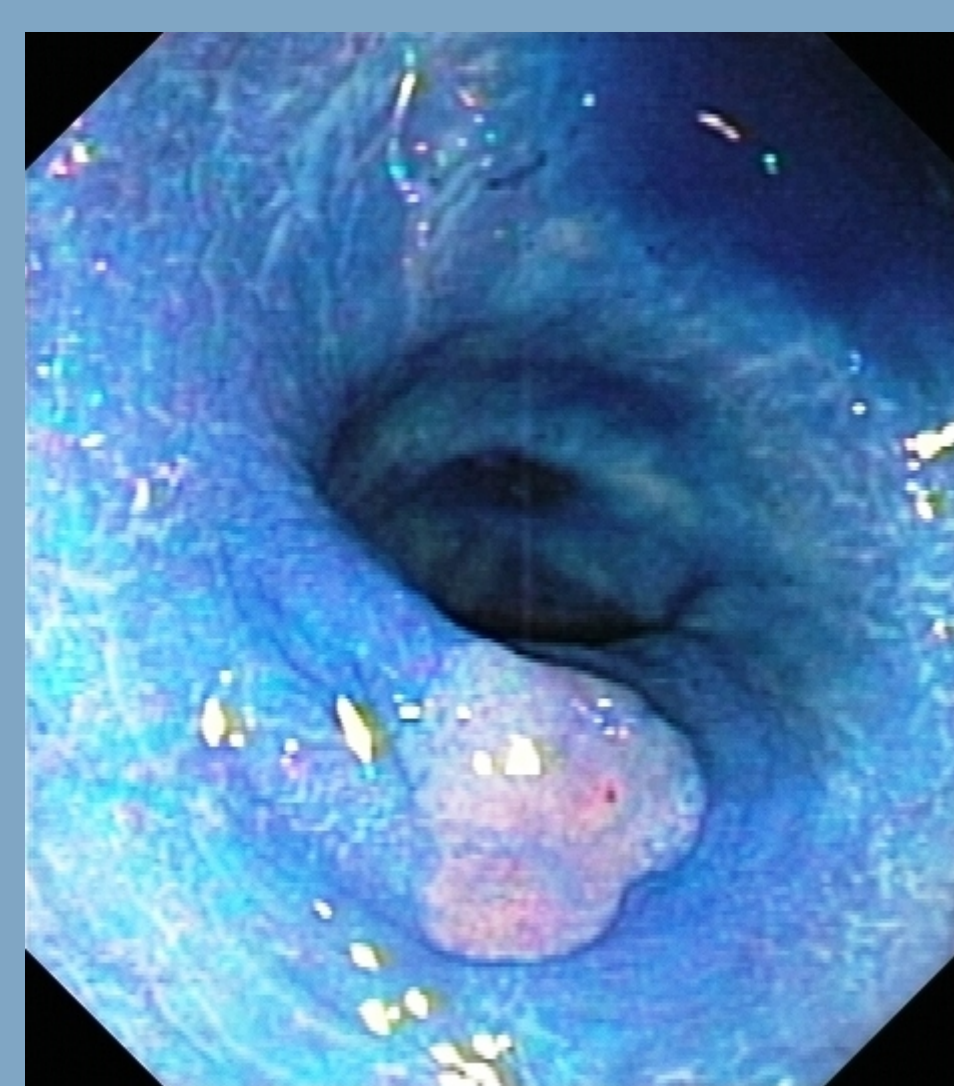


Fig. 2.: Lesion borders are clearly delineated after staining, size 12mm, type IIa

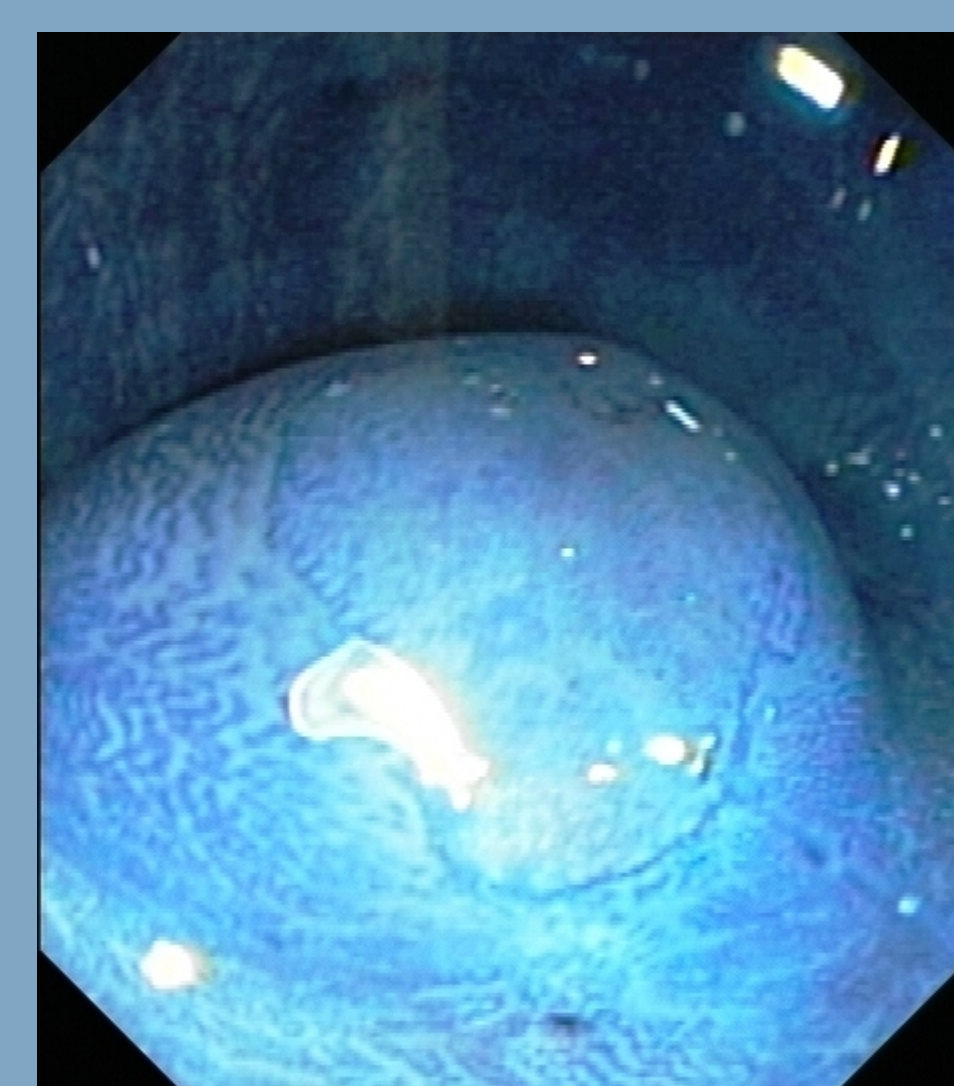


Fig. 3.: Lesion was elevated with saline injection

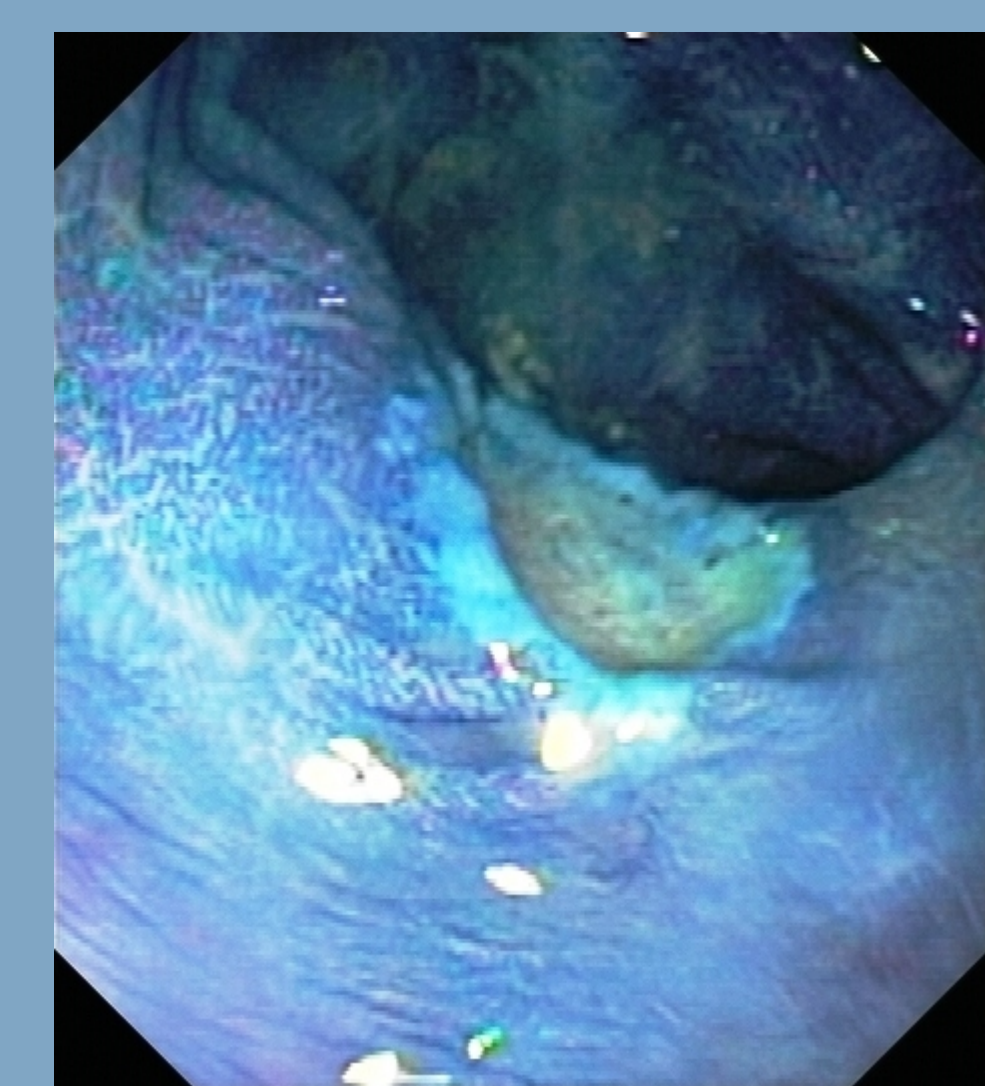
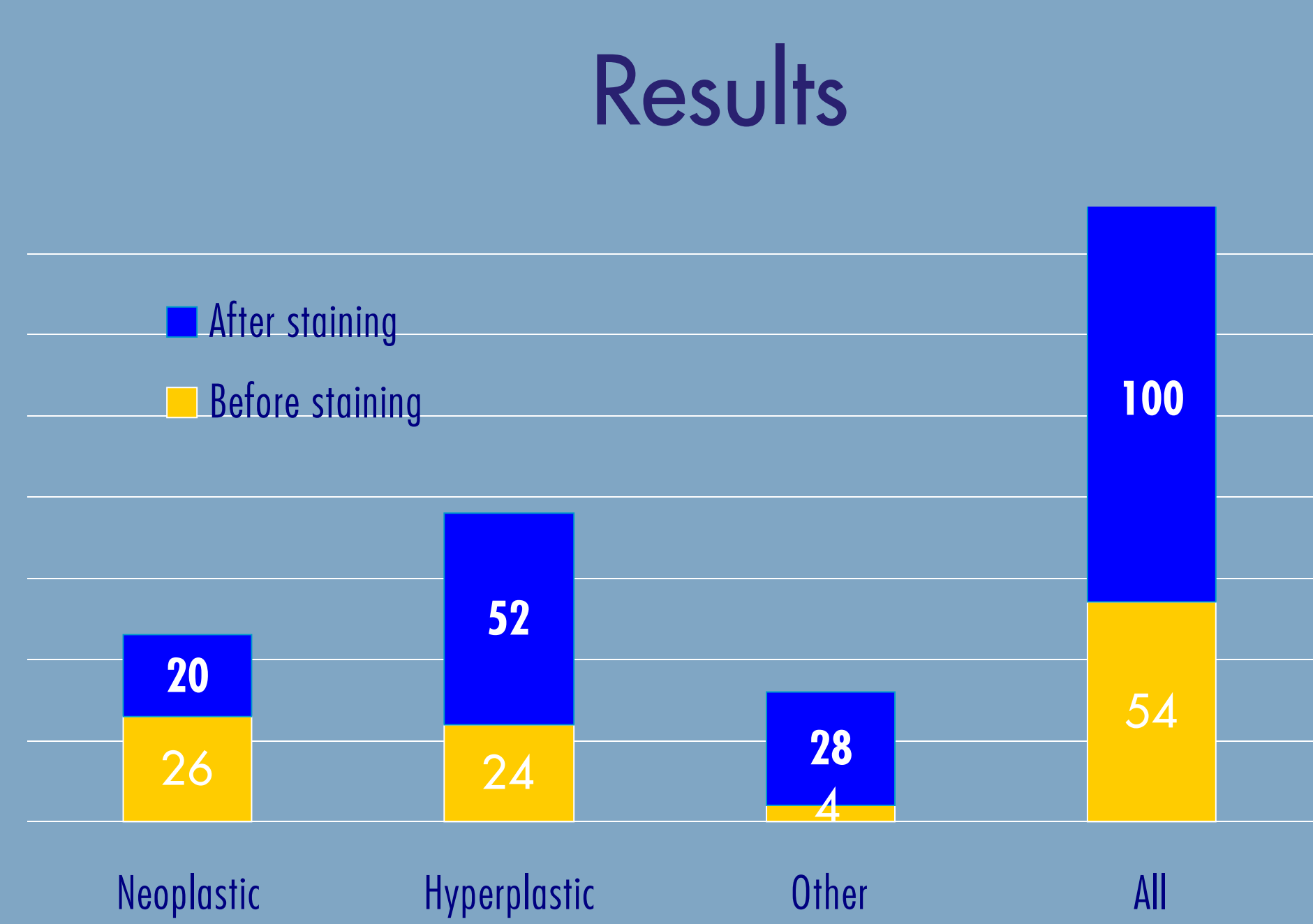


Fig. 4.: EMR was performed

Results:

We found 154 lesions, of them 46 neoplastic, 76 hyperplastic and 32 other non-neoplastic. Before dye spraying we found 54 lesions, after dye spraying another 100 lesions.

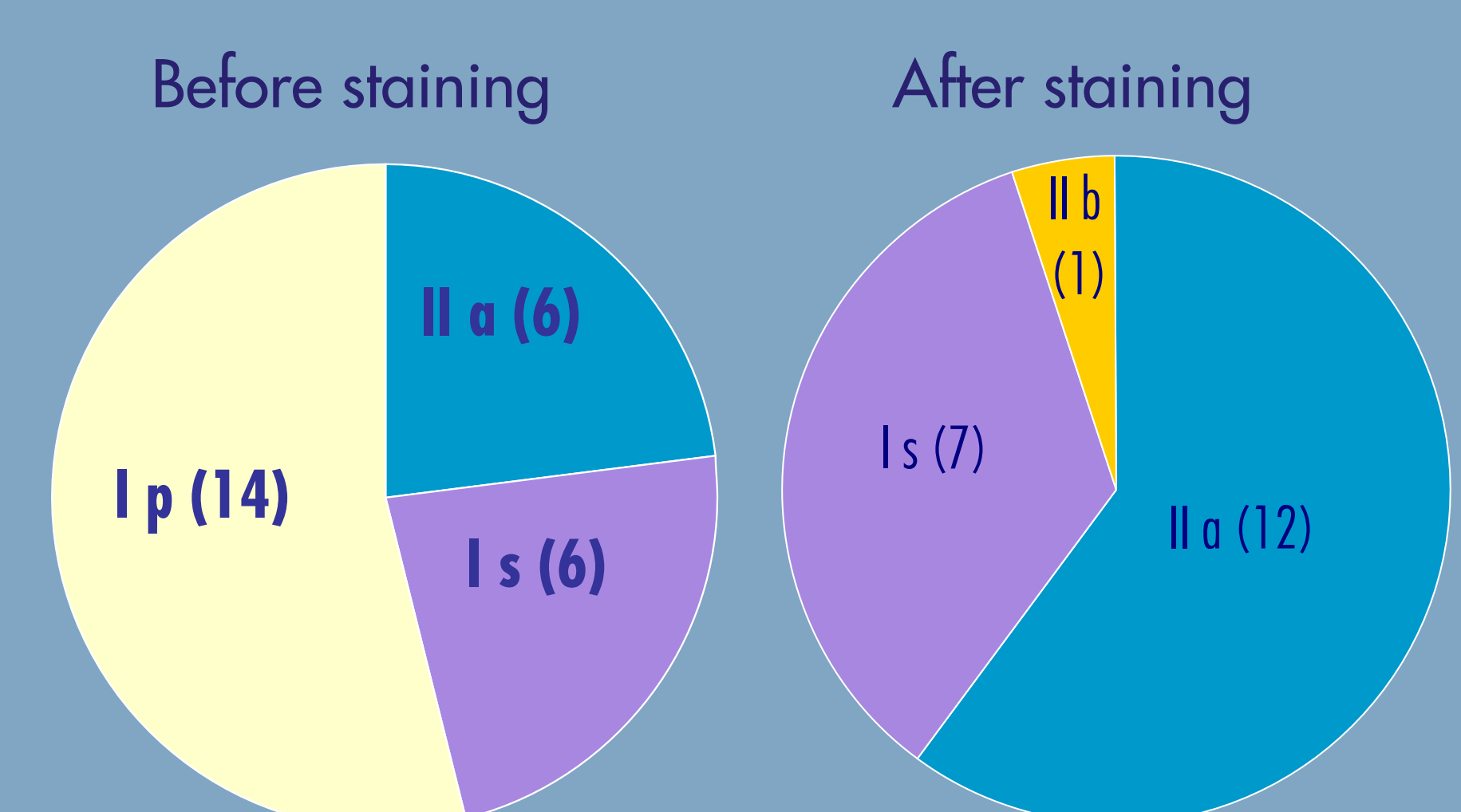
Mean size of neoplastic lesion detected after dye spraying was 4,3mm, 12 times type IIa, 7 times type Is and one type IIb were described. Mean volume 83 ml (40-175ml) of methylene blue solution was used. Results are seen in the table and diagrams:



Neoplastic lesions

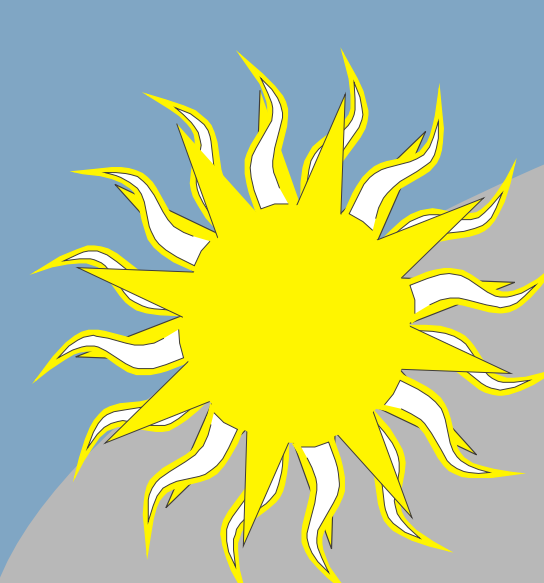
	Before staining	After staining	?
Adenoma LGD	13	13	26
Serrated adenoma	3	7	10
Advanced adenoma	10	0	10
?	26	20	46

Neoplastic lesions - morphology



Conclusions:

1. Chromoendoscopy of the colon and rectum resulted in significant increase of superficial lesions detected, in our study we experienced threefold increase.
2. Lesions detected after dye spraying were non-neoplastic in 80%.
3. We experienced twofold increase detection of neoplastic lesions however all advanced adenomas were detected without dye spraying.
4. Chromoendoscopy of the colon and rectum might be beneficial for patients with increased colon cancer risk.



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