HIGH-RESOIUTION ENDOSCOPY PLUS CHROMOENDOSCOPY VERSUS NARROW BAND IMAGING IN SCREENING OF BARRETT'S ESOPHAGUS

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Introduction

GERD is symptoms or complications resulting from the reflux of gastric contents into the esophagus or beyond, into the oral cavity (including larynx) or lung. GERD represents a high health burden. Barrett's esophagus (BE) is one of the most significant complications of GERD. It is defined as the condition in which columnar epithelium replaces the squamous epithelium that normally lines the distal esophagus. A proposed strategy to decrease the risk of death from esophageal cancer is to use endoscopy to screen patients with chronic gastroesophageal reflux disease for Barrett's esophagus. Some new image-enhanced technologies may show efficacy as a screening tool for BE, among them Narrow band imaging technology (NBI) which uses short wavelength light (essentially blue light) for tissue excitation and Chromoendoscopy involves the topical application of dyes at endoscopy to enhance visualization of the mucosal surface architecture.

Aim of the Work

The aim of this study was to compare the accuracy of the narrow band guided biopsy relative to chromoendoscopy guided biopsy in detecting Barrett's esophagus in chronic GERD patients confirmed by endoscopy and their utility as screening methods for Barrett's esophagus in chronic GERD patients.

Patients and Methods

This study carried out on fifty (50) GERD patients (56% were males and 44% were females) scheduled for upper gastrointestinal endoscopy. The patients divided in two groups matched in age, sex and weight,

Group 1 (25 patients) evaluated using Narrow band imaging targeted biopsy and Group 2 (25 patients) evaluated using methylene blue chromoendoscopy targeted biopsy. All biopsy specimens reviewed by pathologiststo detect Barrett's esophagus and to exclude any dysplastic or neoplastic changes.

Results

Table : Comparison between the two studied groups according toendoscopy

	Group 1 (n = 25)		Group 2 (n = 25)		χ^2	p
	No.	%	No.	%		
LA class						
A	11	45.8	14	66.7	2.463	^{MC}p= 0.569
B	9	37.5	5	23.8		
C	3	12.5	1	4.8		
D	1	4.2	1	4.8		
Hiatal hernia						
No	15	60.0	10	40.0	2.000	0.157
Yes	10	40.0	15	60.0		
Incompetent GOJ						
No	14	56.0	9	36.0	2.013	0.156
Yes	11	44.0	16	64.0		
Other finding						
None	23	92.0	22	88.0	1.081	^{MC}p= 1.000
Ulcer	2	8.0	2	8.0		
Stricture	0	0.0	1	4.0		

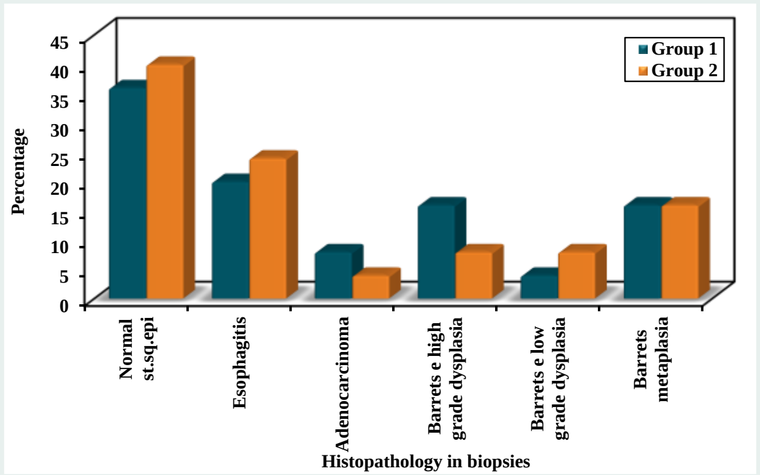

Figure: Comparison between the two studied groups according to histopathology in biopsies

Conclusion

Our findings suggest that both NBI and methylene blue chromoendoscopy can be effective screening methods for Barrett's esophagus in chronic GERD patients. Moreover, our results suggest that adding benefit on the conventional four quadrant biopsy and both are comparable in screening of barrets esophagus.