EVALUATION OF SMALL BOWEL BY DOUBLE-BALLOON ENTEROSCOPY IN PATIENTS WITH CROHN'S DISEASE

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Introduction

Inflammatory bowel diseases (IBDs) are idiopathic inflammatory diseases affecting the gastrointestinal tract. IBDs can be categorized broadly into two types, Crohn's disease (CD) and ulcerative colitis (UC).

DBE, developed in 2001 by Yamamoto et al., is a useful tool in the diagnosis and therapy of small bowel CD.

The advantages of enteroscopy include the ability for real-time viewing of the small bowel, to biopsy abnormal mucosa and to undertake therapy such as pneumatic dilatation using the through-the-scope (TTS) balloons, achieving hemostasis, polypectomy, local injection of triamcinolone and immunomodulatory drugs and more recently metallic and biodegradable stent insertion.

BAE is a relatively safe procedure in suspected cases of CD, and there are only a few reports of complications.

Aim of the work

The study was designed for Evaluation of small intestinal involvement in patients of crohn's disease by double balloon enteroscopy and correlation of findings with clinical activity of the disease.

Subjects and Methods

MATERIALS

Fifty patients with Crohn's disease will undergo DBE examination in Alex main university hospital. The diagnosis of Crohn's disease was based on clinical symptoms, laboratory findings, endoscopic findings, and histological findings

All the participants included in the study will be informed about the nature of the study, and their oral and written consents on participating voluntarily will be obtained.

METHODS

All subjects will be subjected to:

Thorough history taking.

Complete physical examination

Assessment of disease activity by using Harvey-Bradshaw Index Laboratory investigations.

Radiological investigations

CT enterocolonography

Double balloon enteroscopy

Pathological examination ofbiopsy results

Results

Table 1:

Harvey-Bradshaw Index	Double Ballon Enteroscopy Small Intestinal Findings			F	p
	No proximal small intestine lesions (n=20)	Mild to moderate proximal small intestinal lesions (n=15)	Extensive proximal small intestinal lesions (n=15)		
Min. – Max.	5.0 – 13.0	9.0 – 20.0	18.0 – 28.0	152.305*	<0.001*
Mean ± SD.	6.65 ± 1.73	14.53 ± 3.0	21.80 ± 2.98		
Median (IQR)	6.50 (6.0-7.0)	16.0 (12.0-16.0)	21.0 (20.0-25.0)		
Sig. bet. grps	$p_1<0.001^*$, $p_2<0.001^*$, $p_3<0.001^*$				

Table 2:

Calprotectin	Double Ballon Enteroscopy Small Intestinal Findings			F	p
	No proximal small intestine lesions (n=20)	Mild to moderate proximal small intestinal lesions (n=15)	Extensive proximal small intestinal lesions (n=15)		
Min. – Max.	50.0 – 200.0	250.0 – 500.0	550.0 – 1000.0	300.182*	<0.001*
Mean ± SD.	135.0 ± 43.23	340.0 ± 82.81	850.0 ± 125.36		
Median (IQR)	150.0 (100.0-150.0)	300.0 (300.0-350.0)	850.0 (750.0-950.0)		
Sig. bet. grps	$p_1<0.001^*$, $p_2<0.001^*$, $p_3<0.001^*$				

Conclusion

The results of the study concluded that there is adirect relationship between the deep small intestinal affection in crohns disease and the severity of clinical symptoms, grade of HARVEY-BRADSHAW and lab results.

The DBE results in the current study were useful in confirming the diagnosis of isolated CD of the small bowel. We come to the conclusion that in individuals with suspected small bowel CD, DBE in the event of unremarkable colonoscopy findings validates the diagnosis of CD.

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