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Tolerance of Gastro-Intestinal Endoscopy without Sedation: An Experience in a Tertiary Level Hospital in Bangladesh

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Abstract

Background: Upper and lower GI endoscopy are the most exigent procedure to diagnose various diseases in gastroenterology. Acceptability and tolerability of Endoscopy are variable due to its way of approach to the individuals. Negative attitude towards these procedures can be overcome by proper motivation of patients regarding importance of the tests and also by explaining the additional sideeffects of sedatives, cost and time to spend for tests. **Objective:** The aim of this study was undertaken to see the attitude, response during procedure, easiness of finding lesions and completeness of these procedures without sedation. **Methodology:** This was a cross-section study. Samples were collected purposively of whom age were between 13 and 65 of either sex and who underwent Upper and Lower GI procedures in the department of Gastroenterology, Shaheed Suhrawardy Medical Hospital from January 2016 to October 2016. This study was approved by the Ethical review board of Shaheed Suhrawardy Medical College. **Results:** Among 1205 patients, 724 (Upper GI 663 and lower GI 61) patients were male and 481 (Upper GI 433 and lower GI 48) were female. 58.26% patients showed positive attitude towards GI procedures through both upper and lower route. 57.61% male and 46.19% female well tolerated upper GI endoscopy, whereas 37.70% male and 43.75% female tolerated lower GI endoscopy. Procedures were successfully completed in 97.89 % male and 97.22% female patients of UGI and 96.72 male and 85.42% female patients of LGI endoscopy without sedation. **Conclusion:** Endoscopy of both upper and lower gastrointestinal tract can safely and effectively be done without sedation. *[Journal of National Institute of Neurosciences Bangladesh, 2018;4(2): 141-144]*

Keywords: Acceptability and tolerability; Upper GI Endosocopy; Lower GI endoscopy; Sedation; Negative and positive attitude

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Introduction

Gastro-Intestinal tract which is the internal canal of the body, is extending from mouth to anus. It is assigned to ingest, transport, digest, absorb nutrients and to excrete unwanted and waste products from the body. It is vulnerable to have a number of inflammatory, degenerative and neoplastic conditions or diseases. To appreciate the exact site, nature, extend of these conditions and to select the appropriate modality of treatments to offer, visualization of these lesions

through endoscopy is the modern most accepted mode of investigation[1].

To execute these, someone is to allow a tube to be introduced through mouth or anal canal. However, despite having a definite indication, acceptability and tolerability of endoscopy are variable because the scope is to pass through a very highly sensitive and potentially distress producing areas of throat and oesophagus or through the most shameful area to expose. To perform these procedures smoothly, simple assurance and proper motivation regarding importance of the tests are not always and equally effective. So sedations, having even though very minimum potential cardio-respiratory risks are used in selected cases of these procedures[2]. However, in rest of the cases, procedures are done without sedatives in most of the countries of Asia, Middle-East and few European countries[3]. But level of difficulties and odds of these procedures in non-sedated states in different group people of our country are not known. Therefore this present study was undertaken to see the attitude, response during procedure, easiness of finding lesions and completeness of these procedures without sedation.

Methodology

This was a cross sectional study and samples were collected purposively from patients of age ranged between 13 and 65 of either sex and who underwent Upper and Lower GI procedures in the department of Gastroenterology, Shaheed Suhrawardy Medical Hospital from January 2016 to October 2016. All patients agreed to undergo GI procedures without sedation, patients given consent to take part in study and patients of age ranging from 13 to 65 were included in this study. Patients having severe co-morbidities and patients who did not give consent to take part in the study were excluded from this study. Through face to face interview by an expert gastroenterologists, the indications, methods of procedures, probable findings and their utility and available alternatives with their limitations were explained to all patients and consent paper for the procedures were signed in presence of a witness. A data sheet for each patient's profile, including age, sex, indications, attitude towards procedures without sedation and their behavior during the procedures, difficulty in finding lesions and completeness of the procedures was filled in. Objective appearances of the patients undergoing endoscopic procedure were witnessed and werelabeled according to the patient's response. Patient responses were categorizes as: 0=No resistance, 1=Groaning, 2 = Try to resist with hand, 3= done with support of GI nurse and 4= did not allow to do. 0 and 1 were labeled as well tolerated, 2 and 3 werelabeled as moderate discomfort and 4 werelabeled as not tolerated.This study was approved by the Ethical review board of Shaheed Suhrawardy Medical College. Data were analyzed by χ^2 through SPSS program of version 16.

Results

One thousands two hundred and five patients were included for this study and 1096 had upper GI and rest 109 patients had Lower GI endoscopy. Their ages ranged from 13 to 65 years (Table 1).

Table 1: Age Distribution of Studied Patients (n=1205)

Age Group	Endoscopy Performed		Total
	UGI	Lower GI	
11 to 20 Years	134(12.2%)	5(4.6%)	139
21 to 30 Years	235(21.4%)	16(14.7%)	251
31 to 40 Years	246(22.4%)	19(17.4%)	265
41 to 50 Years	287(26.2%)	24(22.0%)	311
51 to 60 Years	112(10.2%)	33(30.3%)	145
61 to 70 Years	82(7.8%)	12(11.0%)	94
Total	**1096**	**109**	**1205**

724(Upper GI 663 and lower GI 61) patients were male and 481(Upper GI 433 and lower GI 48) were female (Table 2).

Table 2: Sex Distribution of Studied Patients (n=1205)

Gender	Endoscopy Performed		Total
	UGI	Lower GI	
Male	663(91.6%)	61(8.4%)	724
Female	433(90.0%)	48(10.0%)	481
Total	**1096**	**109**	**1205**

Irrespective of sex, only 702(58.26%) patients expressed positive attitude and 503(41.74%) patients showed negative attitude towards unsedated endoscopy (Table 3).

Table 3: Attitude towards GI Procedures without Sedation(n=1205)

Attitude	Frequency	Percent
Positive	702	58.26
Negative	503	41.74
Total	**1205**	**100.0**

57.61% male and 46.19% female well tolerated upper GI endoscopy. 28.36% male and 35.79% female showed moderate discomfort of Upper GI endoscopy.

But only 14.03% male and 18.02% female did not tolerate Upper GI endoscopy at all. 37.70% male and 43.75% female well tolerated of lower GI endoscopy. 32.79% male and 27.0 8% female felt moderate discomfort at the time of lower GI endoscopy. But 29.51% male and 29.17 % patient did not tolerate colonoscopy (Table 4).

Table 4: Tolerance of GI Procedures without Sedatives (n=1205)

Tolerance	Upper GI Endoscopy		Lower GI Endoscopy	
	Male	Female	Male	Female
Well tolerated	382(57.6%)	200(46.2%)	23(37.7%)	21(43.7%)
Moderate Discomfort	188(28.4%)	155(35.8%)	20(32.8%)	13(27.1%)
Not tolerated	93(14.0%)	78(18.0%)	18(29.5%)	14(29.2%)

To find lesions, difficulties were encountered in 16(02.41%) cases of UGI and 3(04.92%) of LGI endoscopy in male patients without sedation. In female it was in 12(02.77%) and 2(04.17) patients respectively (Table 5).

Table 5: Difficulties in Finding Lesion in GI Procedures without Sedatives (n=1205)

Gender	Upper GI Endoscopy		Lower GI Endoscopy	
	Frequency	Percent	Frequency	Percent
Male	16	02.41	3	04.92
Female	12	02.77	2	04.17

Procedure could be completed in 649(97.89%) male and 421(97.22%) female patients of UGI and 59(96.72%) male and 41(85.42%) female patients of LGI endoscopy without sedation (Table 6).

Table 6: Completeness of GI Procedures without Sedatives

Gender	Upper GI Endoscopy		Lower GI Endoscopy	
	Frequency	Percent	Frequency	Percent
Male	649	97.89	59	96.72
Female	421	97.22	41	85.42

Discussion

Endoscopy, for both upper and lower Gastrointestinal tract are invasive procedures and patients express varied attitude towards these especially when done without sedation and sometimes becomes difficult to convince and complete. So this study was undertaken to see the attitude, response during procedure, easiness of finding lesions and completeness of these procedures without sedation.

All together 1205 patients were observed with an age range from 13 to 65 years; more than two-third (768, 70.07%) of upper GI patients were within 21 to 50 years of age. On the other hand, 63.30% (69) patients of lower GI endoscopy were of relatively higher age. Similar aged patients were also found in other studies[4-5]. Three fifth (60.08%) of patients for all cases were male and rest (39.92%) were female which is consistent with other studies done by different group of people[6-8].

Prior knowledge regarding the nature of tests were different among the patients and their attitude to do these without sedation were also variable; 702(58.26%) being positive and 503(41.74%) showed negative attitude. Listeningdetailed description of the procedure and need for doing these tests, majority were agreed and could be done easily. Withstanding capabilities to afford the discomfort of the procedures were variable between upper and lower GI and also between sexes. 57.61% male and 46.19% female and 37.70% male and 43.75% female well tolerated of upper GI endoscopy and lower GI endoscopy respectively. 28.36% male and 35.79% female showed moderate discomfort of Upper GI endoscopy. 32.79% male and 27.0 8% female felt moderate discomfort at the time of lower GI endoscopy. But only 14.03% male and 18.02% female did not tolerate Upper GI endoscopy at all.On the other hand, 29.51% male and 29.17 % female patient did not tolerate colonoscopy. This findings are relatively dissimilar with other studies[9-10].This may be due to different socio-cultural attitudes of studied population.

To find the lesion in GI procedures without sedation were not that difficult; minimum discomfort were experienced in upper GI (2.41% in male and 2.77% in female) and lower GI (4.92% in male and 4.17%) endoscopy. This type of observations were also reported by others[11-15]. Endoscopy could be completed in a reasonably acceptable level in upper GI (97.89%) in male and (97.22%)in female and a slight variations (96.72%) in male and (85.42%) in female were observed. These findings are minor deviations from other studies[16]. These small variations may be due to differences of indication for endoscopic procedures.

Conclusion

Endoscopy of both upper and lower gastrointestinal tract are essential tests for a number of indications. These can safely and effectively be done both with and without sedation. Negative attitude towards accepting tube can be overcome by proper motivation of patients

regarding importance of the tests and also by warning the associate side effects of sedatives, cost and time to spend for tests. However, in selected cases and in anxious patients it is better to be done under sedation. In children and in uncooperative patients, these endoscopic procedures should better be done under sedation.

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