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Research Article

**THE RELATIONSHIP BETWEEN THE STOPPING TIME OF
COLONOSCOPY AND THE RATE OF ADENOMA
RECOGNITION IN PAKISTAN**¹Dr. Amina Muqaddas, ² Muhammad Jawad, ³Dr. Tooba Qasim¹District Head Quarter Hospital Sheikhpura²TB Clinic Hasilpur³Govt THQ Hospital Police Lines Qila Gujjar Singh Lahore**Abstract:**

Aim: Limited evidence exists on the relationship between the stopping time of colonoscopy and the rate of adenoma recognition in Pakistan. We expected to explain the clinical effect of waiting time for colonoscopy in a Pakistani context.

Materials and methods: Between May 2018 and June 2019, we enrolled 6,925 back-to-back patients from four Pakistani endoscopic homes at Lahore General Hospital, Lahore. Colonoscopies were separated in the accompanying meetings according to the average withdrawal time of a negative colonoscopy: < 7 min (group A), 7-12 min (group B) and ≥ 15 min (group C). We have broken down the link between these gatherings on abstinence time and the rate of adenoma localization using numerous calculated relapse analyses.

Results: The last survey included 3,880 patients. The collection included 210 (4 colonoscopies), group B 2 750 (15 colonoscopies) and collection C 930 patients (14 colonoscopies). We found that adenoma discovery rates would generally increase with increased waiting time for mean negative colonoscopy ($p < 0.02$). When comparing the odds ratios in Group B and Group C, the odds ratios in Group B and Group C were 1.97 (96% provisional certainty [CI], 1.43-2.75) and 2.52 (96% CI, 1.69-3.76), taken separately.

Conclusion: A waiting time of more than 7 minutes for colonoscopy seems, by all accounts, to be a quality indicator for colonoscopy, even in a Japanese context.

Key words: Colorectal neoplasms; Colonoscopy; Quality indicators.

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INTRODUCTION:

According to subsequent global disease data, malignant colorectal cancer (CRC) is the third most commonly analyzed malignant growth in men and the second most commonly analyzed in women. In Japan, CRC rate and mortality have increased, and it is currently one of the tumors analyzed as often as possible [1]. Colonoscopy polypectomy of precancerous lesions is a useful method for preventing CRC. In any case, significant amounts of colorectal polyps are not detected during screening and observation colonoscopy. The adenoma localization rate (ADR), which is characterized by the proportion of people who have undergone colonoscopy and have at least one identified adenoma, has been used as one of the reliable indicators for colonoscopy [2]. A few studies have recommended that the growth rates of colorectal malignancies have been inversely related to the ADR with screening colonoscopy. Waiting time for colonoscopy has been considered an indicator of ADR in some studies. In most of these tests, the waiting time for colonoscopies during negative colonoscopies (i. e. no polyp identified and no treatment performed) is used as an indicator of quality [3]. The Barclay et al. interim study proposes that a basic waiting time of 7 minutes is required to increase a sufficient ADR. Based on these results, a waiting time of more than 6 minutes during normal colonoscopy is prescribed in the United States, and the European rule prescribes that endoscopists should be encouraged to withdraw more gradually if adenoma localization rates are low and waiting times are short [4]. We have therefore recently detailed the clinical effect of CRC control colonoscopy recurrence in a multicenter study in Pakistan, the objectives of this review were to examine the conditions that included the question of value in our previous study and to explain whether colonoscopies that use longer wait times during negative colonoscopies can distinguish more adenomas.

METHODOLOGY:

Between May 2018 and June 2019, we enrolled 6,925 back-to-back patients from four Pakistani endoscopic homes at Lahore General Hospital, Lahore.

Colonoscopies were separated in the accompanying meetings according to the average withdrawal time of a negative colonoscopy: < 7 min (group A), 7-12 min (group B) and \geq 15 min (group C). This valuable review used unique information, including wait times for colonoscopies, from a previous multicenter study. The colonoscopies that were interested in the survey were isolated in the three accompanying gatherings according to the average withdrawal time of a negative colonoscopy: < 7 min (group A), 7-12 min (group B) and \geq 12 min (group C). A negative colonoscopy was characterized as a colonoscopy without distinction of adenomas or tumors. The withdrawal time was characterized as the time between the time the caecum was reached and the time the extension was removed from the back. Similarly, patients were isolated into three gatherings, in accordance with the colonoscopy gatherings. We examined the relationship between these wait time rallies and ADRs, and determined the rate of localization of neoplasia. Propelled neoplasia was characterized by cylindrical adenomas \geq 13 mm, adenomas with villous histology, high-grade dysplasia and malignant growth. The previous study enrolled 6,925 back-to-back patients from four Japanese endoscopic sites. Patients in this study were excluded based on the following criteria: challenging bowel disease, unrealistic perception to the caecum, history of colectomy, colonoscopy performed in 8 months, defective arrangement/poor bowel (Aron chick Scale 5 and above), age < 43 or > 77 years, obscure colonoscopy history, obscure family origin and obscure withdrawal time for a colonoscopy. In addition, patients who had undergone colonoscopy by colonoscopy and who had performed <53 colonoscopies during the examination period were excluded. Finally, numerous strategic relapse examinations were used to assess the proportions of odds, which were balanced by gender, age, an intrusive CRC context, CRC family ancestry, a history of colonoscopy, the emergency clinical context, the level of planning, the use of a distal link and the understanding of colonoscopy. All measurable examinations were performed using IBM SPSS insights, rendered 22 (IBM, Armonk, NY), with $p < 0.06$ considered statistically critical.

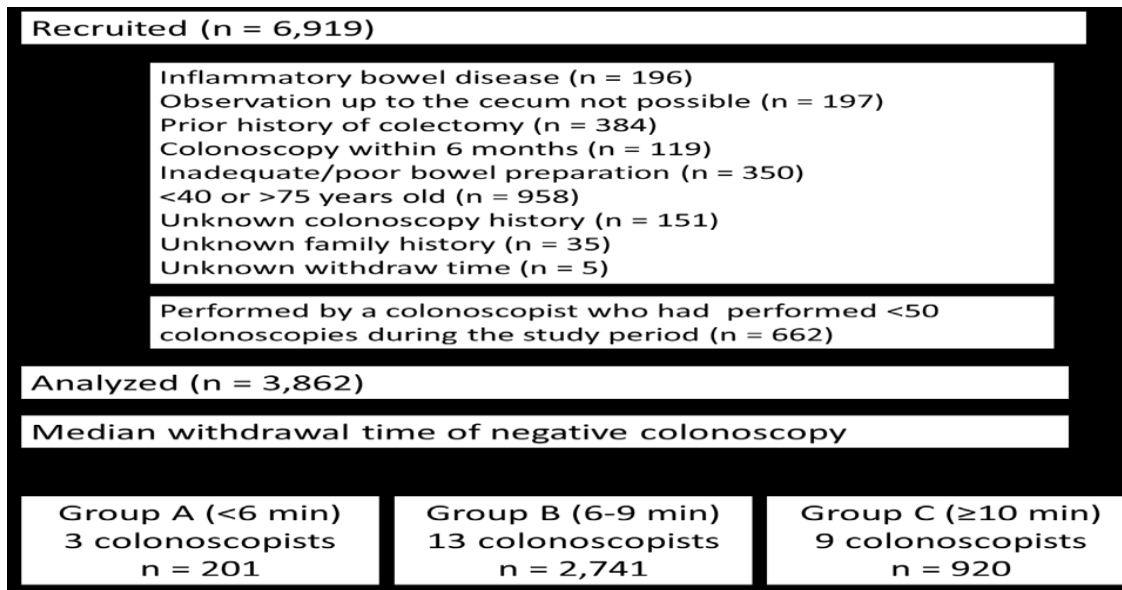


Figure 1: Study flow chart.

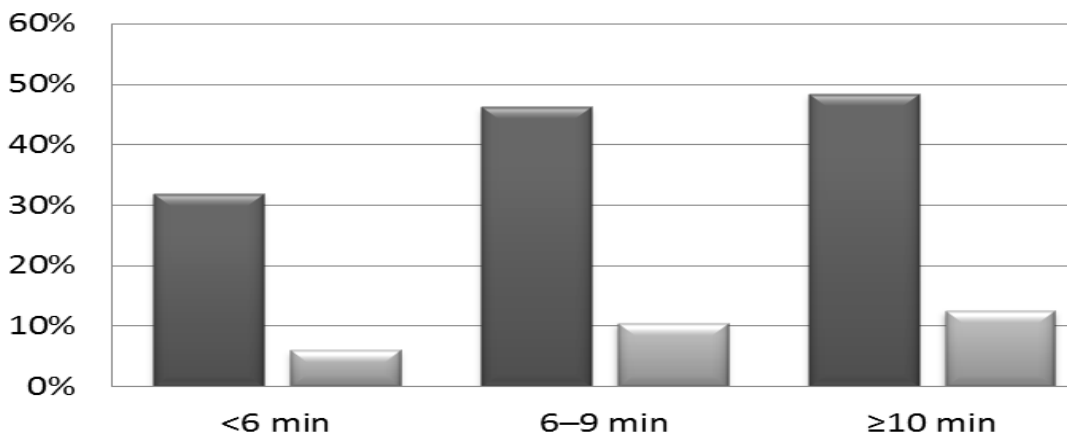


Figure 2:

RESULTS:

The last study included 3,884 patients (Figure 1) who underwent colonoscopy by 25 endoscopists (Table 1). Of the 16 colonoscopies that were performed in less than 1,000 cases, 9 (65%) had an average waiting time longer than 10 minutes (Group C). In addition, only 2 of the 9 colonoscopies (15%), which were involved in more than 5,000 cases, were organized in group C. Rally A (waiting time <6 min) included 211 patients (4 colonoscopies), group B (7-12 min) included 2,747 patients (14 colonoscopies) and group C (≥ 10 min) 940 patients (9 colonoscopies). The persistent qualities are presented in Table 2. The sex, age and history of invasive malignant growth were not fundamentally unique among the three encounters; however, family ancestry of CRC, signs of colonoscopy, recurrence of

previous colonoscopy, clinical setting, level of preparation, use of a distal link and experience of colonoscopy were noteworthy facts among these encounters. In general, adenomas and propelled neoplasia's were distinguished in 1,776 (46.0%) and 413 (10.7%) of the 3,862 patients, individually. However, when a threshold of 7 minutes was used instead, the proportion of chances of ADR by colonoscopy with withdrawal time was 1.14 (96% CI, 0.95-1.38) and those of patients with withdrawal time <9 minutes; this did not give a really essential character. With respect to the different elements of the ADR, male gender, age, recurrence of colonoscopy several or more times in the previous five years, university hospital setting and use of a distal connection were strongly associated with the ADR,

although the context marked by an intrusive CRC, a family origin of the CRC, the level of disposition and experience of colonoscopy were not (Table 2).

Table 1: Outcomes of numerous logistic regression analysis.

	n	Any adenoma	Odds ratio (96% CI) 2	Advanced neoplasia	Odds ratio (96% CI) 2
Group B (6–9 min)	2,741	1267 (46.2%)	1.98 (1.42–2.76)	286 (10.4%)	1.98 (1.07–3.69)
Group A (<6 min)	201	64 (31.8%)	1 (ref.)	12 (6.0%)	1 (ref.)
Group C (≥10 min)	3,862	2.51 (1.68–3.75)		2.49 (1.22–5.10)	413 (10.7%)
Overall	920	445 (48.4%)	1776 (46.0%)	115 (12.5%)	

Variables	Odds ratio (95%CI)	P value
Continuous supervisor ADR		
Age, per year	1.04 (1.03 – 1.05)	<0.01
Sex		
▪ Female	Reference	
▪ Male	1.58 (1.34 – 1.85)	<0.01
Supervisor ADR (per %)	2.73 (0.94 – 7.91)	0.07
Tertiles of supervisor ADR		
Age, per year	1.040 (1.030 – 1.050)	<0.001
Sex		
▪ Female	Reference	
▪ Male	1.578 (1.343 – 1.854)	<0.001
Supervisor ADR category		
▪ Low	Reference	Reference
▪ Medium	1.121 (0.900 – 1.397)	0.307
▪ High	1.280 (1.010 – 1.622)	0.042

ADR, adenoma detection rate; CI, confidence interval; GEE, generalized estimation equation.

Table 2: Odds ratios of other reasons for adenoma detection rate:

DISCUSSION:

The withdrawal time of colonoscopy is widely used as a quality indicator in Western countries; in any case,

limited evidence of its usefulness exists in Asia. As far as we know, this review is the first multicenter examination on colonoscopy wait times in Japan. This

review recommends that a longer waiting period be added to a higher ADR and ANDR in a Pakistani context [6]. The ADRs were 1.99 and 3.54 times higher in patients who underwent colonoscopy with a negative wait time of <7 minutes than in patients who underwent colonoscopy with a wait time of 7-12 minutes and ≥ 12 minutes, individually. A 7-minute delay was used in our study because Barclay et al. reported that an average wait time of more than 7 minutes is useful to maintain the quality of the colonoscopy [7]. In any case, different surveys have used a 7-minute delay instead. In this review, we therefore attempted to conduct the survey using both a 7-minute and an 8-minute waiting time [8]. We found that when 8 minutes were used as the cut-off time, there were no major contrasts between rallies. Although the US colonoscopy recognition rule requires the performance of a 14-year interim colonoscopy after a negative screening colonoscopy, there is no rule for re-screening after negative colonoscopies in Pakistan. Our results show that the waiting time for colonoscopy can be used as a quality indicator even in Pakistan, and can therefore be useful to inform the rules of screening by observation in the Japanese population [9]. The experience of colonoscopies was also broken down during this examination. Colonoscopies of veterans who participated in more than 5,500 cases had shorter wait times than those of youth who participated in less than 1,500 cases; however, the vast majority of colonoscopies performed maintained an ideal level of MAR, regardless of withdrawal time. Over time, the sequelae of this study suggest that a basic waiting time of 6 minutes would now even be required for all colonoscopies [10].

CONCLUSION:

Despite these constraints, this review provides significant data on colonoscopy wait times in a Japanese context. The consequences of this survey recommend that a longer waiting period be added to a higher ADR and ANDR. A waiting time of more than 6 minutes for a colonoscopy has all the characteristics of a quality marker of colonoscopy, even in a Japanese context.

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