

## INTRODUCTION

Incidence of colorectal cancer (CRC) is rising among young individuals.

Studies addressing the risk factors, patient characteristics and appropriate surveillance intervals in young patients with pre-malignant adenomatous polyps are limited.

## AIM

Describe the clinical characteristics of young patients (< 50 years of age) with adenomatous colonic polyps and characterize those polyps.

## METHODS

Retrospective chart review of young patients (< 50 yrs) with polyps on colonoscopy between 2008 and 2021 at a tertiary care center.

Patient demographics, clinical characteristics, colonoscopy indication, and number, size, location and pathology of polyps were documented.

Timing and findings on follow-up colonoscopies were also collected.

Study population was divided into two cohorts: patients with and patients without adenomatous polyps.

## RESULTS

- 877 patients were included in our study; 610 (70%) had adenomas.
- Patients with adenomas had a mean age of 42.9 ± 6 years, 61% were males, and 51% were smokers. Mean BMI was 27.5 ± 5 and mean Vitamin D level was 22.1 ± 10 ng/dl. Around half (49%) of those were 44 years old or younger.
- 156 (26%) patients with adenomas had a follow-up colonoscopy after a mean time of 2.9 ± 2 years. 74 (47%) of those had recurrent adenomas. 38 (24%) patients had a second follow up colonoscopy after 2.1 ± 1 years. 15 (39%) patients of those had recurrent adenomas.

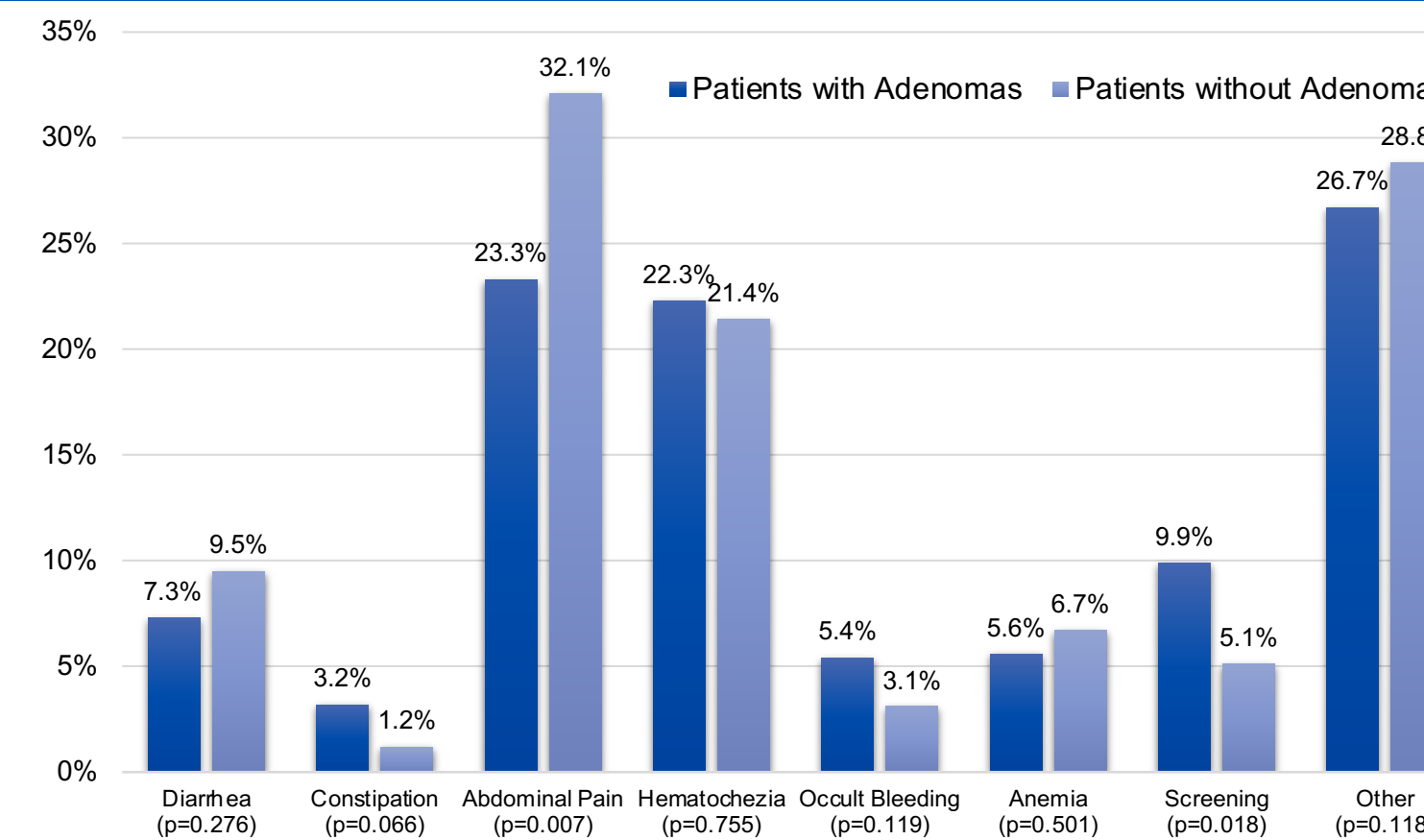


Chart 1. Colonoscopy indications in patients younger than 50 years old found to have adenomatous polyps vs. those found to have non-adenomatous polyps only.

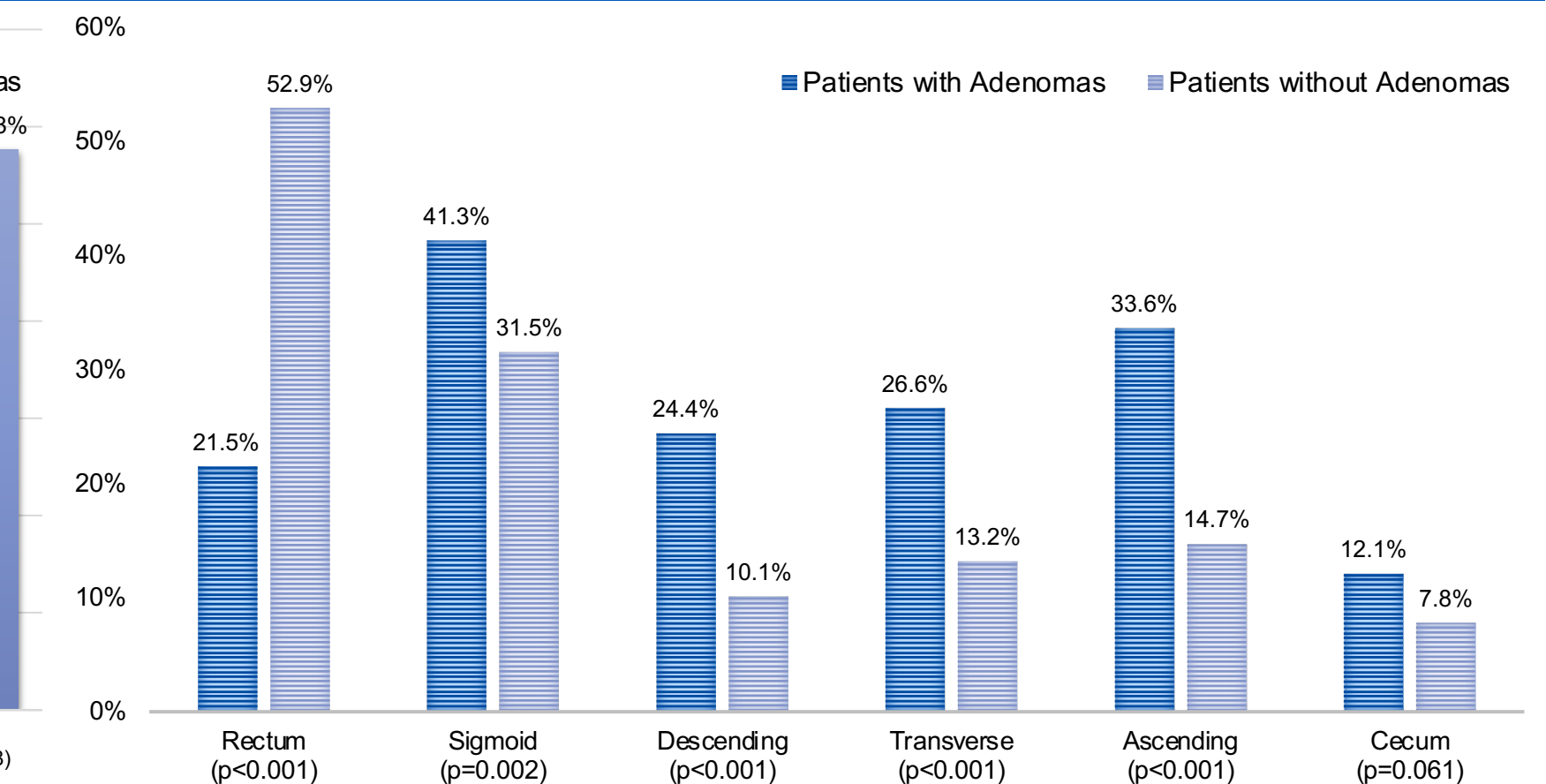


Chart 2. Distribution of polyp locations between patients with adenomas and patients without adenomas (hyperplastic polyps only).

Polyp Pathology	Baseline Colonoscopy (N = 610)	1 <sup>st</sup> Follow-up Colonoscopy (N = 156)	2 <sup>nd</sup> Follow-up Colonoscopy (N = 38)
Tubular – N (%)	569 (93)	71 (45)	13 (34)
Tubulovillous – N (%)	29 (5)	0 (0)	1 (2)
Villous - N (%)	1 (0.2)	1 (0.6)	1 (2)
Sessile Serrated – N (%)	19 (3)	2 (1)	0 (0)
Hyperplastic – N (%)	104 (17)	42 (27)	14 (37)

Table 1. Number of individuals found to have each pathology finding on baseline and follow-up colonoscopies for patients < 50 years old with adenomas.

	Patients Aged 18 - 44 (N = 299)	Patients Aged 45 - 50 (N = 311)	p - value
Males	58.6%	63.0%	0.256
Smokers	50.1%	51.6%	0.705
Mean BMI	26.77	28.20	0.886
Mean Size of Polyps (cm)	1.21	1.01	<0.001
Follow-up Rate	24.7%	26.1%	0.713
Adenomas on 1 <sup>st</sup> Follow-up	70.3%	74.1%	0.597
High Risk Patients*	24.7%	30.2%	0.130

Table 2. Comparison of clinical and polyp characteristics between patients < 45 years of age and patients 45 to 50 years of age with adenomatous polyps at baseline colonoscopy. \*Patients with 3 or more polyps and/or a polyp ≥ 1 cm and/or villous histology.

## CONCLUSIONS

- ❖ Patients < 50 years of age with colonic adenomas were mostly males and overweight; hence colonoscopy should be considered in young individuals with high-risk baseline characteristics.
- ❖ High rates of recurrent adenomas and larger mean polyp size in patients < 45 years of age may warrant more frequent surveillance than is done for patients > 45 years.