



Is There a Lower Adenoma Detection Rate in Patients aged 45-49 Undergoing Screening Colonoscopy in Comparison with Patients aged 50-75?

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Introduction

Colorectal cancer (CRC) is the #2 cancer killer in the US.¹ Recently, the USPSTF guidelines reduced the CRC screening age to 45 years old for average-risk individuals.² The adenoma detection rate (ADR) of 25% (20% F, 30% M) is an accepted benchmark of a quality colonoscopy in 50-75 year old age group. Since adenoma prevalence increases with age, it is suggested that a 1-3% ADR can be anticipated in 45-49 year old patients undergoing a screening colonoscopy.³ Few studies have evaluated the ADR among 45-49 year old screened population since the integration of the new 2021 guidelines.

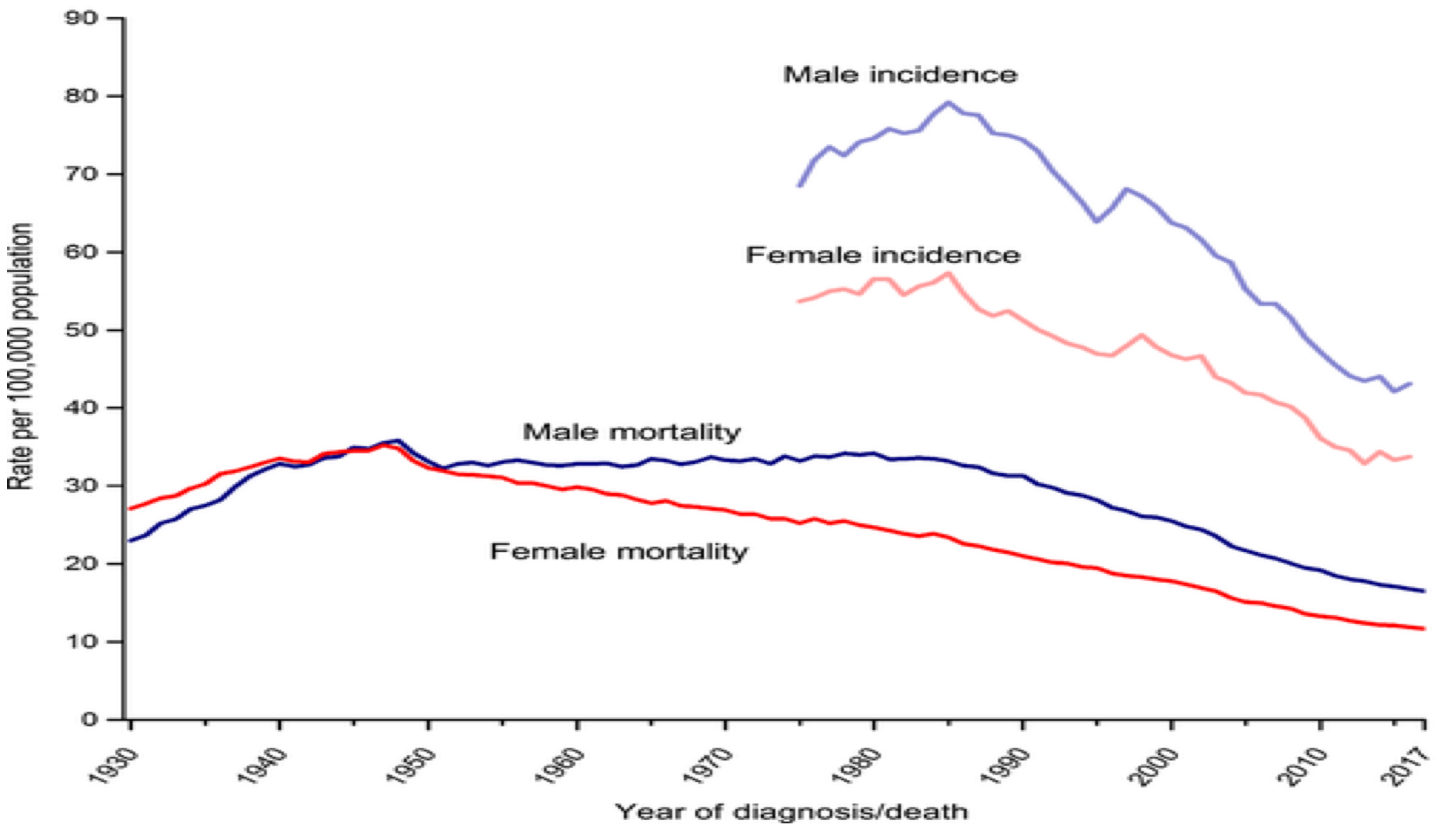


Figure 1. Incidence and Mortality Rates of CRC for both Male and Females¹

Aim

To compare the ADR in screening colonoscopies in a community GI practice in patients aged 45-49 years old vs. older cohorts during 2021.

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Methods and Materials

A retrospective analysis of records of 6,386 asymptomatic 45-75 year old patients who underwent a screening colonoscopy.

- Exclusion criteria:**
- Prior screening test
 - Incomplete colonoscopy
 - Inadequate bowel preparation
 - Hereditary CRC syndrome, or CRC family history
- Definitions:**
- ADR is defined as the percentage of colonoscopies with ≥1 tubular adenoma (TA), tubulovillous adenoma (TVA), or sessile serrated adenoma (SSA).³
 - An advanced lesion was defined as a TA/SSA >10 mm, villous or high grade dysplasia, traditional serrated adenoma, or >5 adenomas or SSA in any combination, or cancer.³

Results

5985 colonoscopies (2857 M, 3128 F) were performed.
 10.9% of the screened population was between ages 45-49.
 The ADR in the 45-49 age range was 32.1% vs 38.7% (P< 0.0097) for the 50-75 age cohort.

Table 1. ADR in Screening Colonoscopies

	45-49 yo N=654	50-54 yo n=2563	P-value (compared to 45-49)	50-75 yo n=5331	P-value (compared to 45-49)
Overall ADR (%)	32.1	36.2	0.1158	38.7	0.0097
ADR (%) in men n=2857	37.2	41.6	0.2951	44.2	0.0885
ADR (%) in women n=3128	28.2	30.6	0.4586	33.6	0.0888
APC	0.56	0.69	0.0005	0.77	< 0.0001
CRC detected	1	2	0.5757	10	0.8452

ADR: Adenoma Detection Rate; APC: Adenoma Per Colonoscopy; CRC: Colorectal Cancer

References

1. Siegel RL, et al. Cancer statistics, 2019. CA Cancer J Clin 2019;69:7-34.
2. US Preventative Services Task Force. Screening for colorectal cancer: US Preventative Services Task Force recommendation statement. JAMA 2021;325:1965-1977
3. Shaukat A, et al. Adenoma detection for 45 – to 49 – year old screening population. Gastroenterology 2022; 162:957-959.

Discussion

- In our study, consisting of 6386 average risk screening colonoscopies performed in our community centers. A total of 10.9% of the screened population was between ages 45-49.
- The ADR was significantly lower in the 45-49 year old cohort (32.1%) compared to the 50-75 year old cohort (38.7%).
- The APC is lower in the younger cohort (0.56) compared to aged 50-75 years of age (0.77).
- The ADR in the younger age cohort remains well above the accepted ADR benchmark of 25%.
- Gastroenterologists can expect a slightly lower ADR in the newest screening cohort (age 45-49), but it remains critical that physicians emphasize the importance of average-risk CRC in the younger demographic because they are at risk for CRC.

Conclusions

In conclusion, the ADR was lower in the 45–49-year-old cohort compared to the 50–75-year-old cohort, with the overall ADR being 32.1% vs. 36.2% respectively; however the ADR is above the threshold for effective screening. This study advocates for CRC with colonoscopy for average risk patients aged 45-49 years of age.