

CORRESPONDENCE

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Decline in a Colonoscopist's Adenoma Detection Rate After First Cataract Surgery With Restoration After Second Cataract Surgery



Dear Editor,

We read with much interest the recent article in your Journal by Theodore R. Levin, et al entitled:

“Development and external validation of a prediction model for colorectal cancer among patients awaiting surveillance colonoscopy following polypectomy”, where adenoma detection rate (ADR) was a seminal performance measure.¹ Incidentally, another recent paper Su-Ying Liang et al,² showed seminal findings that both ADR and sessile serrated lesion detection rate were initially reduced in older (surmised by: “years in practice”) male endoscopists, the differences lessening over time. Although improvements were noted in this group, other factors may affect older endoscopists as the brief case report below shows, in the sensitive interval between 2 cataract surgeries, performed serially.

Decreased or disturbed visual acuity can decrease the ADR of colonoscopists. Eye vision may be temporarily subtly affected after single cataract eye surgery because of blurriness, swelling, erythema, inflammation, whether due to local traumatic injury, or exosome release by either the operated eye or the unoperated eye.^{3,4} Also, persistence of the residual unilateral cataract may cause difficulties in eye coordination resulting in decreased perception of depth or decreased detection of red color (important, as adenomas are reddish).

A 67-year-old, university-trained, board-certified gastroenterologist had 34 years of colonoscopy experience

encompassing thousands of colonoscopies. The ADR showed a borderline significant trend of decline between cataract surgeries ($P = .06$), compared to baseline with significant recovery ($P = .033$) after the second cataract surgery to near baseline (Figure). He had worn reading glasses and had mild astigmatism on his right eye but had no other visual abnormalities. Visual acuity before cataract surgery was 20/30-2 in right eye and 20/30-1 in left eye. However, both eyes demonstrated severe decline to worse than 20/100 with brightness acuity testing due to nuclear sclerotic and posterior capsular cataract changes. Postsurgery testing revealed 20/20 vision in the both eyes. The reported effect on ADR might be related to the severe preoperative cataracts and might not occur with surgery for mild-to-moderate cataracts. Currently, polyp detection rate by AI may help as a diagnostic adjunct to determine the effects of cataract surgery on ADR.⁵

This report may have important clinical consequences. Gastroenterologist might have to temporarily suspend performing colonoscopies between cataract surgeries. These data, if confirmed by a larger study of colonoscopists, may have consequences of avoiding performing colonoscopy between the first and second cataract surgeries. This problem of cataract surgery may affect many gastroenterologists because 49.5% of gastroenterologists are >65 year old,⁵ and cataract surgery occurs more frequently in elderly individuals. However, before implementing any clinical changes, the current findings should be confirmed in a large study to determine whether ADR declines after the first cataract surgery and returns to baseline after the second cataract surgery. A large study may be difficult to accomplish because gastroenterologists may not be willing to reveal their ADR because they may fear this statistic might be divulged publicly.

Effect of IOL and Polypectomy

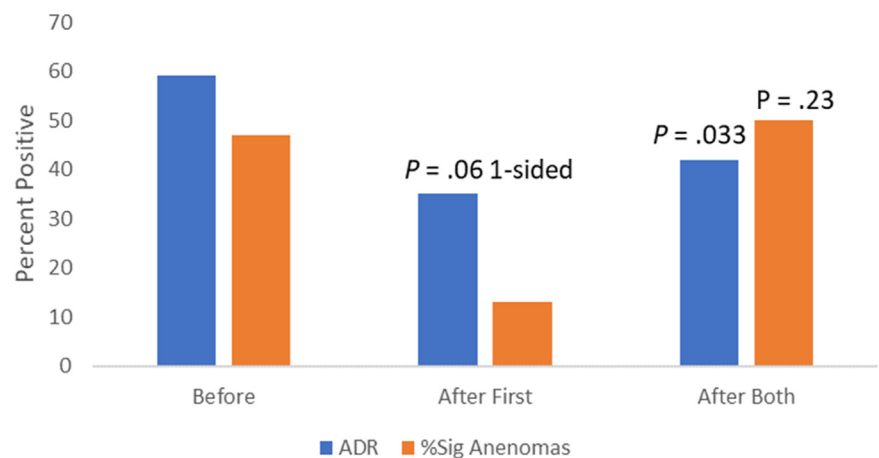


Figure. The figure is a bar diagram showing the effect of intraocular lens (IOL) implants with a trend to reduced ADR for both small and significant adenomas, after the first surgery. With a significant increase in ADR after both surgeries were completed. ADR, adenoma detection rate.

MARTIN TOBI

Research and Development Department
Detroit VAMC
Detroit, Michigan

GABRIEL SOSNE

Division of Ophthalmology
Kresge Institute
Detroit, Michigan

MITCHELL S. CAPPELL

William Beaumont Oakland University School of Medicine
School of Health Science
Rochester, Michigan

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Correspondence:

Address correspondence to: Martin Tobi, MB, ChB, Department of Research and Development, 4747 John R, Detroit, Michigan 48201. e-mail: Martin.Tobi@va.gov.

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