

# P3030 - ARTIFICIAL INTELLIGENCE (CAD-E)-ASSISTED COLONOSCOPY HELPS INCREASE ADENOMA DETECTION RATE (ADR) IN THE AFTERNOON SESSION

## INTRODUCTION

The aim of the study was to evaluate the clinical benefit and safety of using a computer-aided detection (CADe) device, the Argus® system, for screening, surveillance and diagnostic colonoscopy procedures.

## METHODS

A sponsor-initiated, non-blinded, observational prospective randomized controlled study of the Argus® system, a computer-aided diagnostic (CADe) platform, was conducted in the United States to evaluate the safety and efficacy of this device. The study was conducted between May 2 and December 22 of 2022 and was approved by IRB (protocol number 20220415 and document number Argus-01). The study design involved two arms in which adult patients undergoing screening, surveillance or diagnostic colonoscopy procedures were randomized to either an AI-aided study arm (standard colonoscopy with the use of the Argus® system, AC) or the control arm (colonoscopy without the use of the Argus® system, NAC). During this study, in one of the exploratory endpoints, we compared the ADR between the two cohorts for procedures performed in the morning hours and afternoon hours.

## RESULTS

A total of 686 patients in the modified Intention to Treat (mITT) study cohort were included for primary analysis (n=344 AC; n=342 NAC, Table 1). We noted a significant change between the ADR in the two groups in the morning and afternoon sessions (table).

In the Control (NAC) group- ADR in morning (from 7am to 11am) was 0.41 and in the afternoon (from 11am to 3pm) was 0.33 (a relative percentage difference of 21.62%).



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## RESULTS

In the Argus (CADe) study (AC) group- the ADR in morning (from 7am to 11am) was 0.40 and in the afternoon (from 11am to 3pm) was 0.44. The ADR of control (NAC) and CADe -Argus (AC) group in the morning session, were similar (0.40 and 0.41 respectively). The ADR of the two groups in the afternoon sessions, however, revealed a 0.12 difference with the Argus (AC) group being higher than the control (NAC) group with a relative percentage difference of 29.2% ( $p=0.058$ ). We believe that the p-value would reach  $< 0.05$  with a larger cohort.

## DISCUSSION

Multiple studies have identified a drop in the ADR in afternoon colonoscopies compared with morning colonoscopies. The reasons proposed for this decrease in ADR are varied including endoscopist's fatigue and inadequate bowel preparation. In this study, we demonstrate that CADe (Argus) assisted colonoscopy can improve ADR in afternoon colonoscopies and consequently has the potential to be an important adjunct to maintain high quality colonoscopy throughout the day.

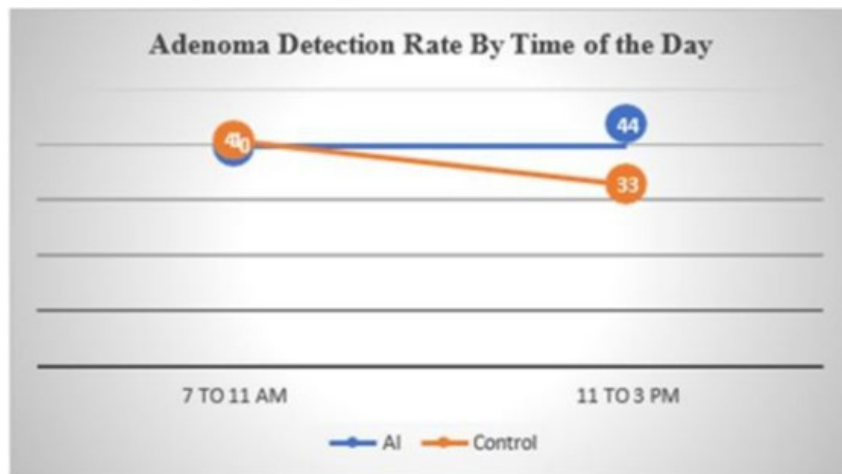


Figure: ADR from 7 AM to 11 AM and from 11.01 AM to 3 PM

## DISCLOSURES:

Andrej Strapko indicated no relevant financial relationships.

Tausif Syed indicated no relevant financial relationships.

Anthony Baratta indicated no relevant financial relationships.

Alexandra Strapko indicated no relevant financial relationships.

Alexander Malik indicated no relevant financial relationships.

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