

PRESENTER:

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## BACKGROUND

- Due to the increasing incidence of Esophageal adenocarcinoma, detection and treatment of Barrett's esophagus (BE) is critical. Radio-frequency ablation is the current standard of care; however, it is expensive with high recurrence rates. Argon Plasma Coagulation (APC) is an alternative method but is associated with perforation, stricture formation, and buried glands.
- Hybrid APC (hAPC) is a novel technique that combines APC with submucosal injection for eradication of BE.

## METHODS

- This is the first systematic review and meta-analysis to evaluate the efficacy and safety of hAPC in the management of BE.
- The primary outcomes assessed were the clinical remission of intestinal metaplasia (CRIM) and clinical remission of dysplasia (CRD) of hAPC, high power APC (90W), and standard APC (30-75W).
- The secondary outcomes assessed were the overall adverse events, individual adverse events, and recurrence rates
- Pooled estimates were calculated using random-effects models with 95% confidence interval (C.I.)The statistical analysis was done using STATA v 17.0 software (StataCorp, LLC College Station, TX).

## RESULTS

- The analysis included 37 studies (9 studies for hAPC, 4 studies for high power APC, 24 studies for standard APC) with a total of 1314 patients
- The calculated pooled rate of CRIM and CRD for hAPC was slightly higher at than high power APC and standard APC groups.
- The calculated pooled rate of adverse events for hAPC was lower than other modalities.

# Hybrid APC appears to be safe and effective treatment modality for patients with Barrett's esophagus

|                      | hAPC   | APC high power | Standard APC |
|----------------------|--------|----------------|--------------|
| CRIM                 | 92.11% | 87.97%         | 80.67%       |
| CRD                  | 99.5%  | --             | 94.83%       |
| Total Adverse events | 3.35%  | 6.3%           | 5.3%         |
| Stricture            | 1.92%  | 3.15%          | 2.44%        |
| Bleeding             | 0.62%  | 1.54%          | 0.01%        |
| Perforation          | 0.0%   | 0.15%          | 0.0%         |
| Recurrence           | 8.83%  | 6.49           | 14.71%       |

**Figure 1** Outcomes of hAPC, high power APC and Standard APC in Barrett's esophagus

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