

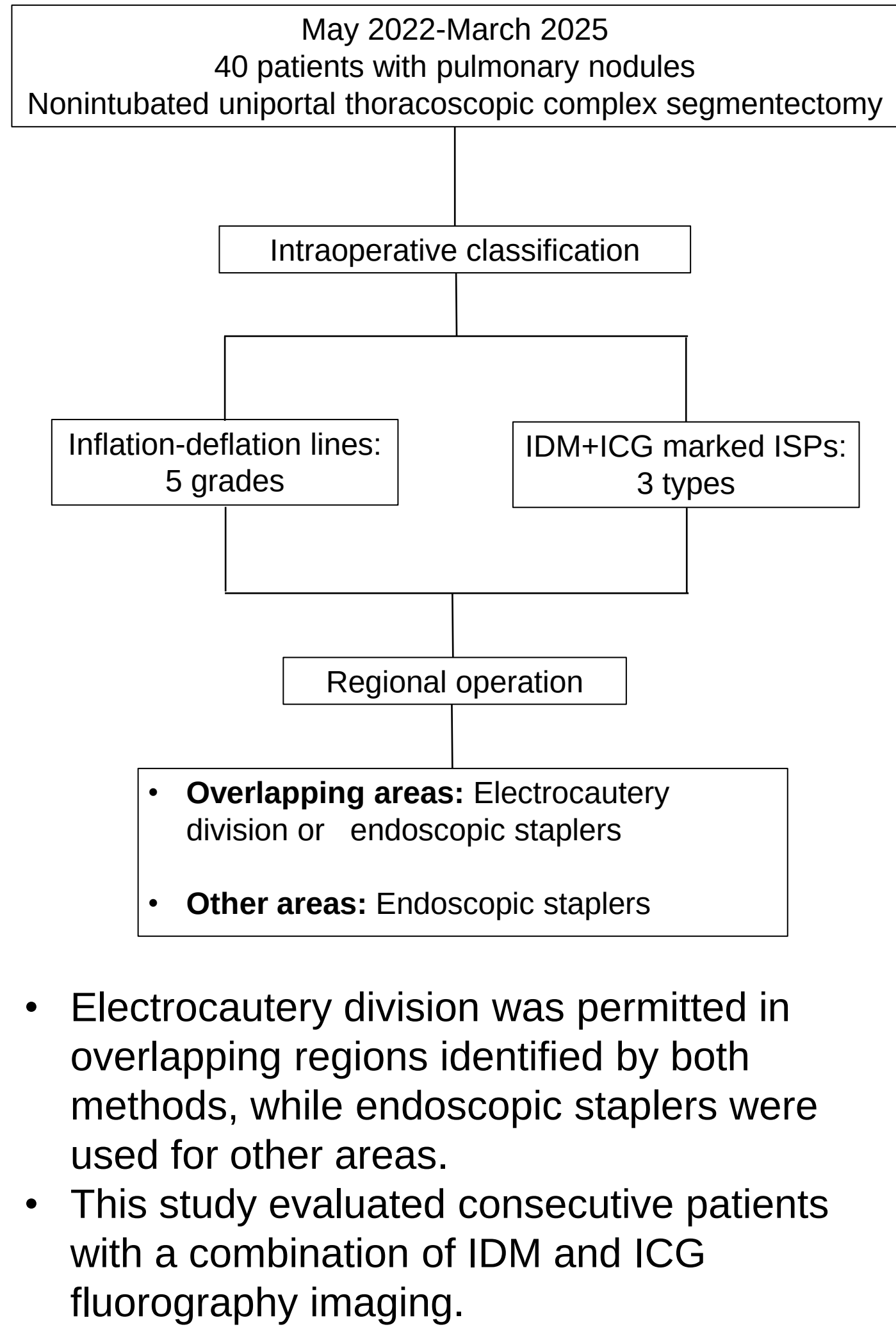
P1.233: Intersegmental Plane Identification in Nonintubated Uniportal Thoracoscopic Complex Segmentectomy

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INTRODUCTION

We aimed to evaluate the combination of the inflation–deflation method (IDM) and indocyanine green (ICG) fluorography imaging in nonintubated uniportal thoracoscopic complex segmentectomy (VATS).

METHODS



DISCUSSION AND CONCLUSION

Actionable Take Away Message

- Combined inflation-deflation method and ICG fluorescence imaging safely and effectively identify ISPs in complex uniportal segmentectomy without intubation.
- The success rate of the inflation-deflation method for identifying intersegmental planes under non-intubated anesthesia is relatively low.
- ISPs determined by the inflation-deflation method and ICG fluorescence method are often inconsistent.
- Electrocautery dissection of overlapping ISP areas helps reduce dimensionality and preserve lung function.

Future Direction for Research

- Develop an AI model fusing CT, ICG, and inflation-deflation to guide precise ISP resection in non-intubated surgery.
- Evaluate long-term lung function, recurrence, and costs of overlapping ISP dissection for complex segmentectomy.

REFERENCES & ACKNOWLEDGEMENTS

REFERENCES

- ¹Lancet. 2022;399(10335):1607-1617
²Lancet Respir Med. 2018;6(12):915-924.



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No AI tools were used in the development of this content. All materials were created solely by human authors in compliance with ACCME standards.

RESULTS

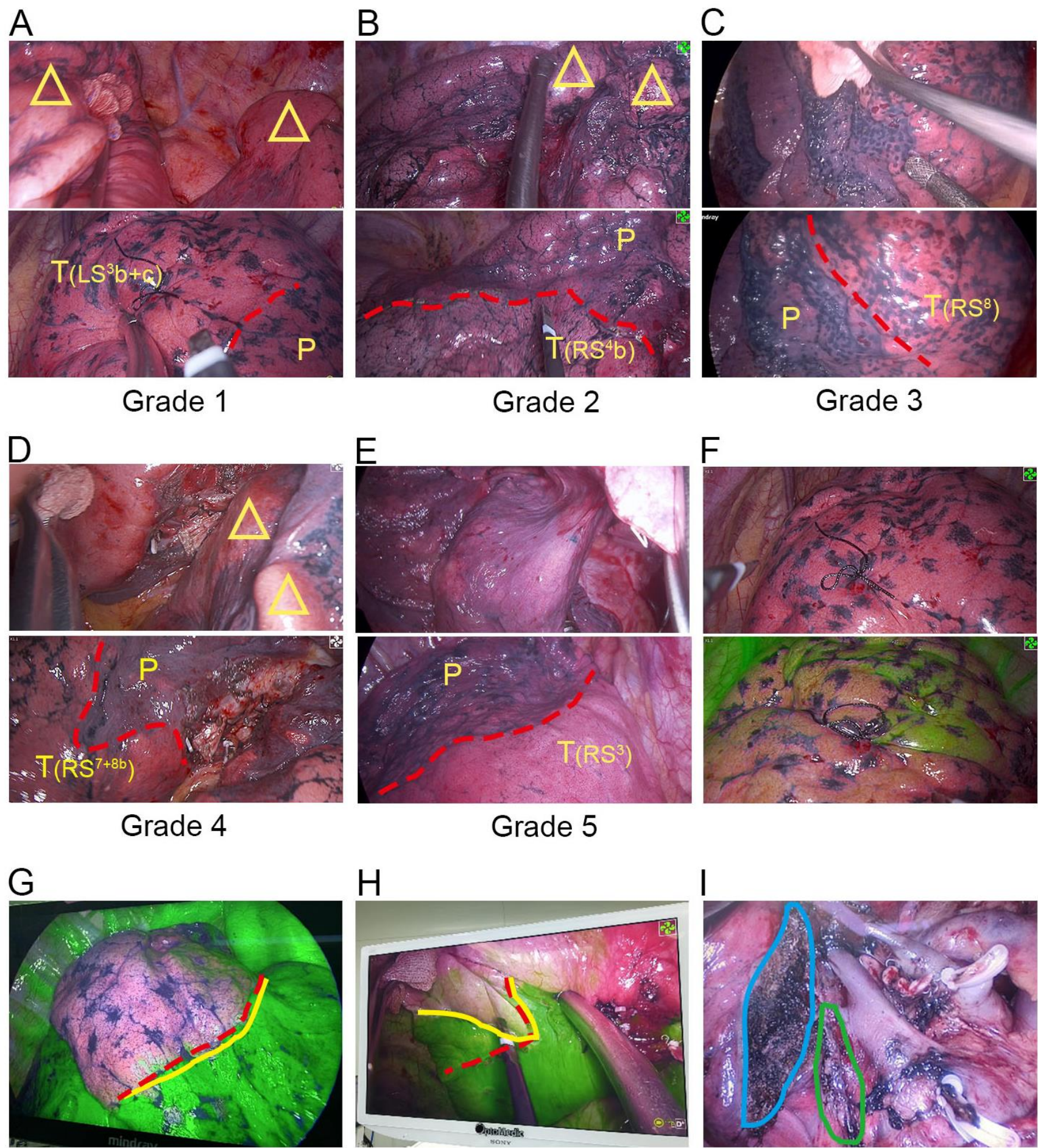


Table 1. Baseline intraoperative and resection characteristics (n=40)

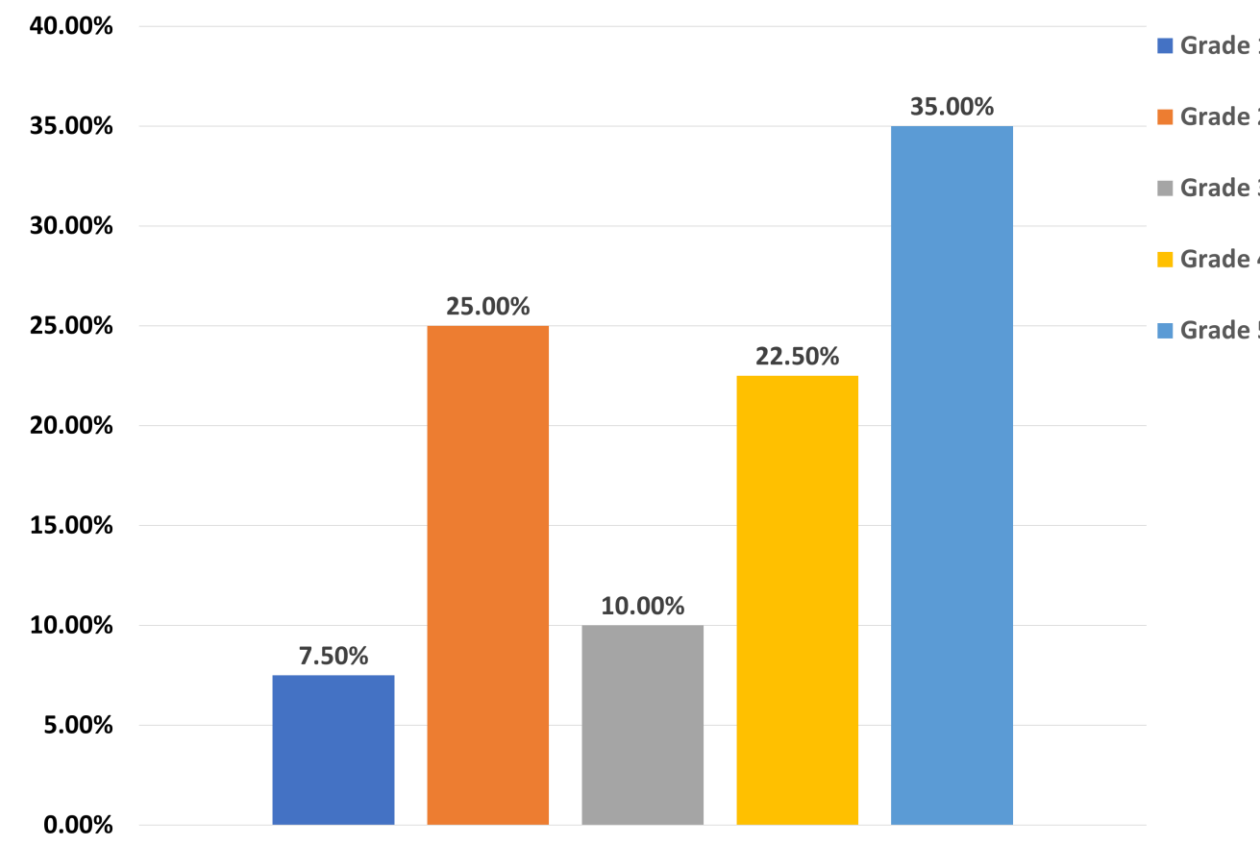
Characteristics ^a	n=40
Anesthesia induction duration, min	13.0 (9.8-15.0)
Surgical duration, min	132.5 (100.0-177.3)
Global in-operating room duration, min	200.0 (160.0-230.0)
Lowest SpO ₂ during operation, %	96.0 (93.8-97.0)
Peak EtCO ₂ during operation, mmHg	58.0 (49.8-62.0)
Lymph nodes dissected: Number of node, n	8 (7-9)
Lymph nodes dissected: Station of node, n	4 (4-5)
Resected lung length, cm	11.3 (10.0-13.0)
Resected lung width, cm	6.8 (5.9-8.0)
Blood loss, ml	40 (20-50)
incisal margin of the tumor, mm	21.0 (20.0-24.0)
ISP visualization time with IDM, min	18.0 (15.8-19.0)
ISP visualization time with ICG, s	26.0 (16.8-33.0)
time of management of the ISP, min	10.0 (7.0-14.3)
Number of linear staplers, n	6 (5-7)

^a Data are presented as median (interquartile range) or number (proportion).

Figure 1

- Inflation-deflation line clarity evaluation (ISP view and adjacent subsegments view) (A-E)
- 3 types of intersegmental plane visualization using the inflation-deflation method combined with ICG fluorescence imaging (F-H)
- Overlapping regions (blue line): electrocautery dissection; other areas (green line): endoscopic staplers (I) .

Inflation-deflation line clarity



Spatial relationship between 2 IPSs

