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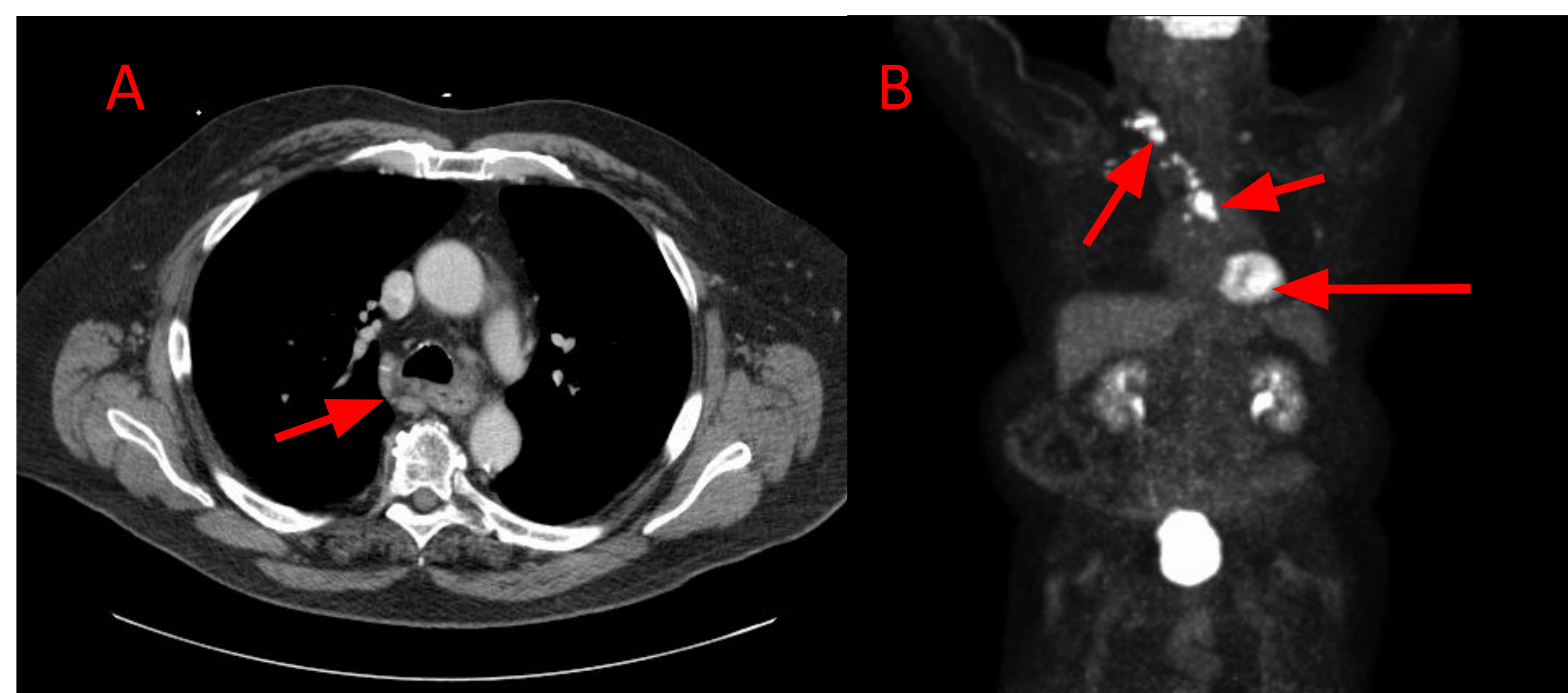
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Introduction

- Palliative management in metastatic esophageal squamous cell carcinoma (ESCC) includes esophageal stenting and radiation therapy
- Endoscopic cryoablation has emerged as a minimally invasive treatment for malignant esophageal neoplasm
- Liquid nitrogen at -85°C → transient tissue ischemia → recruitment of immune cells → localized tissue destruction
- We present a case utilizing endoscopic liquid nitrogen cryoablation as palliative therapy in a symptomatic patient with metastatic ESCC

Case Presentation

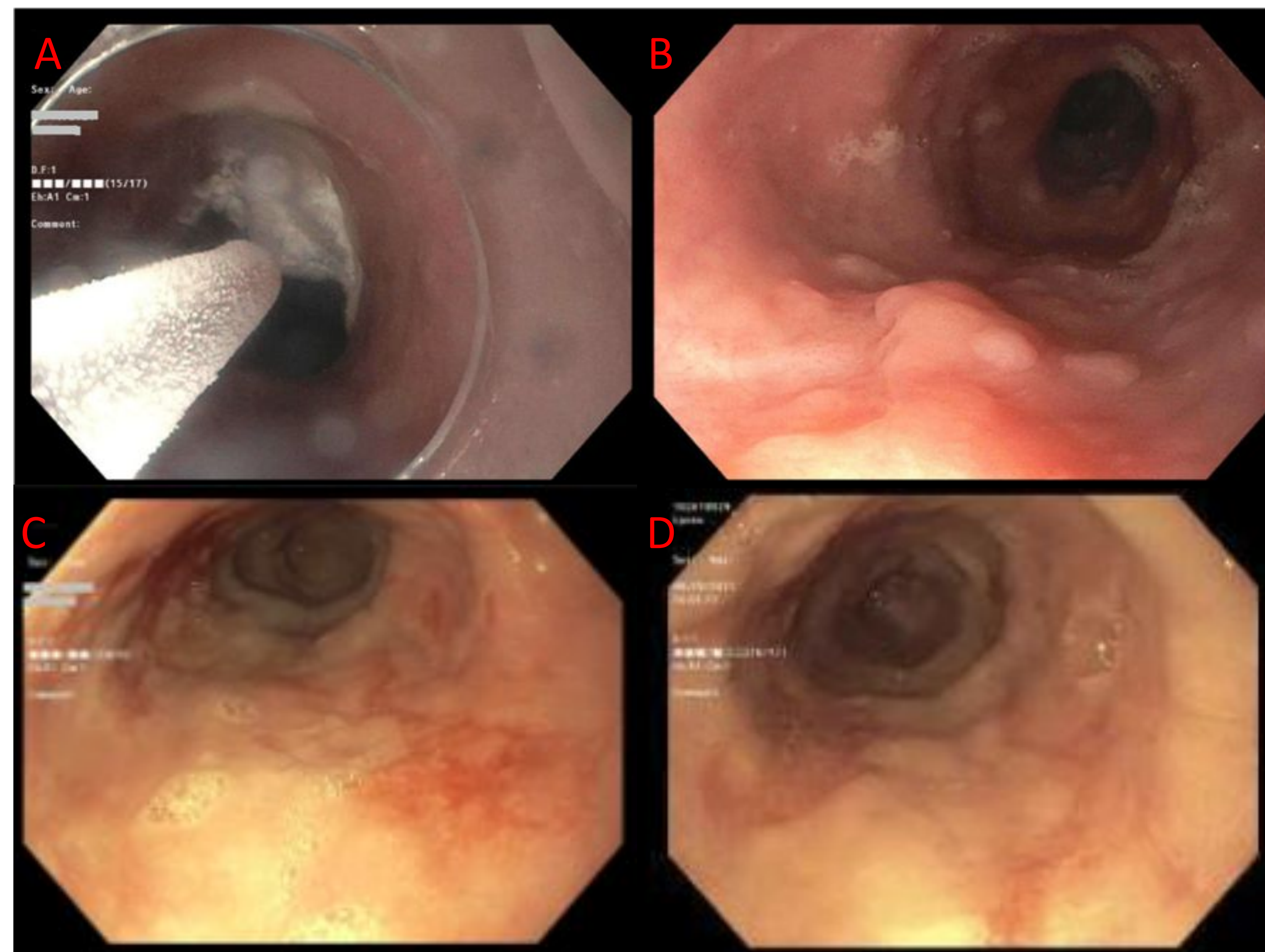
- 81-year-old male, former smoker with daily alcohol use, history of rectal cancer treated with partial distal colectomy
- Presented with progressively worsening chest discomfort and dysphagia to solid foods
- Initial CT chest with mid-esophageal mass concerning for malignancy (Panel 1A)
- PET scan confirming esophageal mass with metastases (Panel 1B)
- Upper endoscopy demonstrating large fungating esophageal mass with partial obstruction (Panel 2A)
- Pathology revealed invasive poorly-differentiated ESCC, Stage IVB (cT4 cN3 cM1, G3)



Panel 1. A) CT: Irregular, circumferential esophageal mass **B)** PET: uptake at esophageal mass, mediastinal lymph nodes, right lung nodule



Panel 2. Upper endoscopy with cryoablation of esophageal mass **A)** Initial large, partially obstructing mass **B)** First application of liquid nitrogen to mass **C)** Final image at conclusion of third session



Panel 3. Subsequent cryoablation for residual disease **A)** Esophageal mass treated at two-months **B)** Small nodule at three-months **C)** follow up at five-months **D)** recent follow up at eleven-months

Response to Cryoablation

- Multidisciplinary team including gastroenterology, medical and radiation oncology recommended palliative radiation and chemotherapy, which he declined
- Due to worsening dysphagia over next 5 months, 35lbs weight loss, CT chest with progression of disease, he agreed to cryoablation
- Underwent three sessions of cryoablation with subsequent patent esophageal lumen (Panel 2)
- He underwent additional sessions at two-months, three-months, five-months and eleven-months for small areas of mucosal abnormalities (Panel 3)
- He tolerated all cryoablation sessions without complications with improved dysphagia, oral intake and stable weight

Conclusions

- Further demonstrates the effectiveness of cryoablation in improving dysphagia and quality of life in symptomatic patients with ESCC¹⁻⁵
- Endoscopic evidence of cryoablation ability to reduce tumor burden in ESCC
- Cryoablation alone appears to be an **effective, safe and well tolerated** palliative treatment for patients with metastatic ESCC

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