Safety and feasibility of Operating in the 3rd space on patients with connective tissue disorders – preliminary experience

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Background : Endoscopic surgery including per-oral endoscopic myotomy (POEM) for the treatment of achalasia and per-oral pyloromyotomy (POP or G-POEM) for the treatment of gastroparesis have seen mainstream acceptance.
The feasibility and safety of these techniques in patients with connective tissue disorders such as Ehler-Danlos Syndrome (EDS) have not been described.

EDS patients are thought to have increased risk of surgical complications including due to poor healing.
It is unknown to what extant do these concerns are applicable in the setting of third space endoscopic surgical techniques.

Methods: Two patients with EDS (hypermobility subtype) were identified. One patient with achalasia and delayed gastric emptying (DGE) underwent POEM + POP on two separate occasions. The second patient with DGE underwent a POP. Diagnosis was confirmed by GES and HRM tests. The procedures were performed using standard technique apart from a longer submucosal tunnel. Endoscopic clips were used for closure.

Results:

- All three procedures performed were uneventful
- No immediate or delayed complications were observed.
- Median length of stay - 4 days.
- Normal swallow study and pain management were obtained prior to discharged.
- Follow-up endoscopy demonstrated complete healing of the mucosal incision.
- Subjectively, operative difficulty was no different in these patients.
- All procedures resulted in clinical improvement of symptoms.

Conclusions: This report suggests that 3rd space endoscopic surgery may be a safe and feasible option in patient with EDS opening these minimally invasive techniques for this complex group of patients.

To our knowledge this is the first published experience of POEM and POP cases to be performed in EDS patients. Further studies are required to establish guidelines.









