



Clinical Case Study



Endoscopic Zenker's Diverticulotomy using SpydrBlade Flex

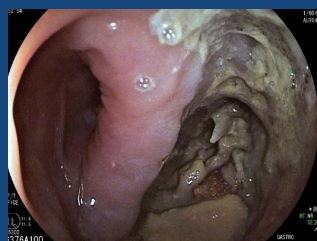
Safe, controlled layer-by-layer dissection in a high risk patient

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Patient History

A 78-year-old male presented with chronic dysphagia and recurrent aspiration pneumonia. His past medical history included emphysema, cachexia, coronary heart disease, and active antiplatelet therapy (clopidogrel), placing him at high risk for surgical and bleeding complications whilst under general anesthesia.



Endoscopic evaluation revealed a 3 cm Zenker's diverticulum, with significant retention and pooling of saliva and food debris (Fig 1). The patient was deemed unfit for surgery, and an endoscopic septotomy was planned.

Figure 1: Zenker's Diverticulum

Procedure



Due to the patient's bleeding risk and comorbidities, the SpydrBlade Flex - a scissor-type device equipped with advanced bipolar RF cutting and super high frequency microwave coagulation - was selected to ensure precision and safety. Before starting the incision, we cleaned the diverticulum from food debris with a foreign body net (Fig. 2& 3).

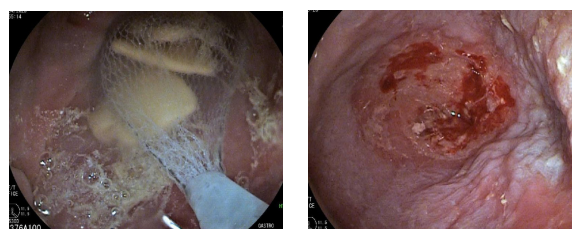


Figure 2 & 3: Removal of debris with foreign body net

Using a therapeutic gastroscope (3.8 mm working channel) with a transparent cap, the septum was visualized.

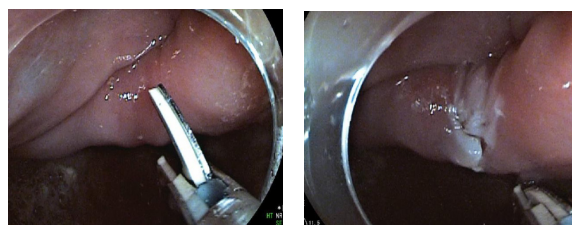


Figure 4-6: Exposure of the septum's apex

No overtube was necessary.

The dissection began with careful exposure of the septum's apex (Fig. 4-6). The thick muscular layer and fibrotic tissue were dissected layer by layer under direct vision (Fig. 7-8). Despite the position in the upper third of the esophagus and without protective intubation, aspiration did not occur during the procedure.



To reduce bleeding risk, pre-emptive coagulation was performed before cutting, especially when crossing visible vessels (Fig. 9 & 10). Minor bleeding was managed effectively with the microwave coagulation function. Alternating coagulation and cutting allowed for continued visibility and reduced thermal spread.

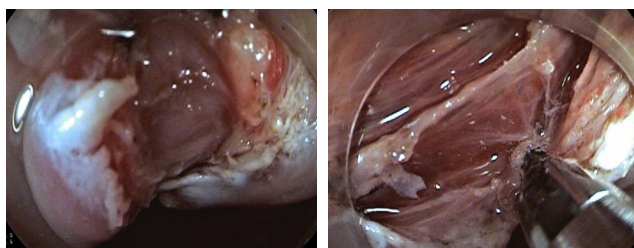


Figure 7 & 8: Advanced bipolar dissection of muscle and fibrotic tissue

Outcome

Dysphagia resolved immediately post-procedure. The patient resumed soft food intake within hours, experienced only moderate pain the next day. Laboratory follow-up revealed no elevation in CRP, and there were no signs of late bleeding during the follow-up period.

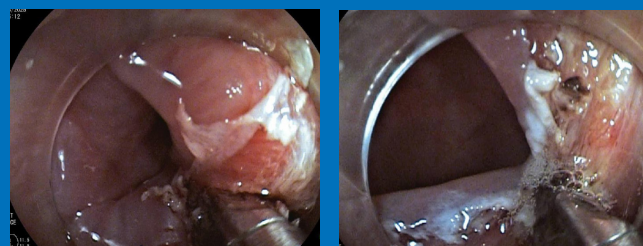


Figure 9 & 10: SHF microwave coagulation

The procedure was completed with clip closure of the mucosal defect (Fig. 10).

Conclusion

This case demonstrates that SpydrBlade Flex enables precise, layer-by-layer cutting and highly effective coagulation, ideal for high-risk patients on antiplatelet therapy. Compared to a standard myotomy with needle knife, the SpydrBlade's bipolar RF system significantly reduces thermal injury and bleeding risk. Uncontrolled muscular contractions were reduced compared to monopolar cutting, leading to a more precise cutting edge.

Although slightly longer in duration, the intervention was more controlled, offering optimal safety for patients unfit for surgery and general anesthesia. This approach provides a highly effective, low-risk alternative in managing Zenker's diverticulum in complex cases.

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