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Efficacy of endoscopic ultrasound-guided fine-needle aspiration for esophageal schwannoma

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A 50-year-old man was admitted to our hospital because of a protruding smooth mass in the mid-esophagus that had been detected on a screening barium esophagogram (Fig. 1A). Gastrointestinal endoscopy revealed a submucosal tumor (SMT) without ulceration in the distal third of the esophagus (Fig. 1B). Endoscopic ultrasonography (EUS) demonstrated a well-demarcated 20-mm hypoechoic tumor that originated from the *muscularis propria* layer (Fig. 1C). EUS-guided fine-needle (22 G) aspiration (FNA) was subsequently performed (Fig. 1D).

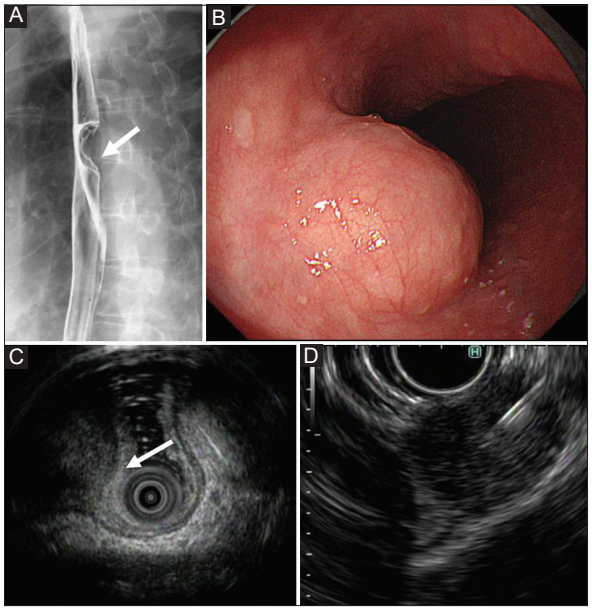

Figure 1 (A) Protruding smooth mass in the middle esophagus, detected on a screening barium esophagogram (*arrow*). (B) Gastrointestinal endoscopy revealed a submucosal tumor without ulceration. (C) Endoscopic ultrasonography demonstrated a well-demarcated 20-mm hypoechoic tumor, originating from the *muscularis propria* layer (*arrow*). (D) Endoscopic ultrasound-guided fine-needle (22 G) aspiration for the tumor

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Conflict of Interest: None

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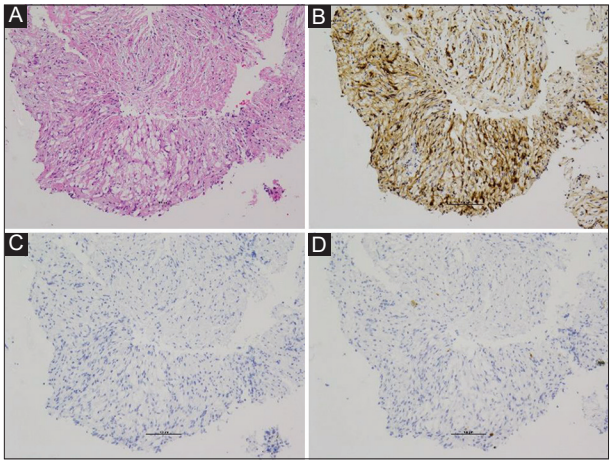

Figure 2 (A) Pathological examination (hematoxylin & eosin staining ×100) of the tumor specimen revealed spindle-shaped cells in a fasciculated pattern. Immunohistochemical staining revealed that the tumor cells were positive for S-100 proteins (B), but negative for desmin (C) and c-kit (D)

Pathological examination (hematoxylin & eosin staining) of the tumor specimen revealed spindle-shaped cells in a fasciculated pattern (Fig. 2A). Immunohistochemical staining revealed that the tumor cells were positive for S-100 proteins, but negative for desmin and c-kit (Fig. 2B,C,D). The patient's diagnosis of esophageal schwannoma was confirmed. Thus, thoracoscopic surgery was performed to remove the tumor.

Esophageal schwannomas are rare esophageal submucosal tumors, comprising approximately 2% of esophageal tumors [1]. Esophageal schwannomas are difficult to diagnose definitively during preoperative endoscopy and imaging investigations, and the final diagnosis is confirmed by pathological examination of the surgically resected material. EUS-FNA is an effective and safe tissue sampling technique for gastrointestinal SMT diagnosis [2], and is useful as a diagnostic tool for esophageal schwannoma.

References

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