

## Tracheoesophageal fistula

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A 26-year-old lady was referred for evaluation of dysphagia. The patient had consumed 50 ml of organophosphorus (OP) components of liquid pesticide 4 months ago and was on ventilatory support with a tracheostomy tube because of OP-poisoning-induced respiratory failure. Treatment included injection of atropine, pralidoxime and other supportive care, and the patient recovered. The patient developed dysphagia after extubation of the tracheostomy tube, and a percutaneous endoscopic gastrostomy (PEG) feeding tube was placed to support her nutritional status. Clinically, there was no neurological deficit. Figure 1 shows the esophago-gastroduodenoscopy (OGD). What is the diagnosis?

OP components are esters, amides or thiol derivatives of phosphoric, phosphonic or phosphinic acids [1]; by inhibiting acetylcholinesterase, excessive acetylcholine at the cholinergic synaptic level produces OP poisoning. TEF is an abnormal communication between the trachea and esophagus. Esophageal malignancy is the most common cause of TEF in adults; other benign causes are induced by endotracheal tubes, tracheostomies and thoracic surgery; by caustic injuries and esophageal infections like tuberculosis, syphilis and histoplasmosis. Ono's sign [2], i.e., cough while swallowing, is an important indication of tracheal/bronchial esophageal fistula. In our case, bronchoscopy revealed TEF at the 7 o'clock position, 5 cm from



Fig. 1

the vocal cord at the junction of the cartilaginous and membranous portion, which corresponded to the lower end of the tracheostomy scar. The incidence of TEF following tracheostomy is less than 1% [3]. To our knowledge, this is the first case report of tracheostomy-induced TEF in a patient with organophosphorus poisoning. Our patient underwent tracheo-esophageal fistulectomy and closure with a free sternocleidomastoid interposition muscle flap. The PEG tube was removed 1 month after surgery.

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