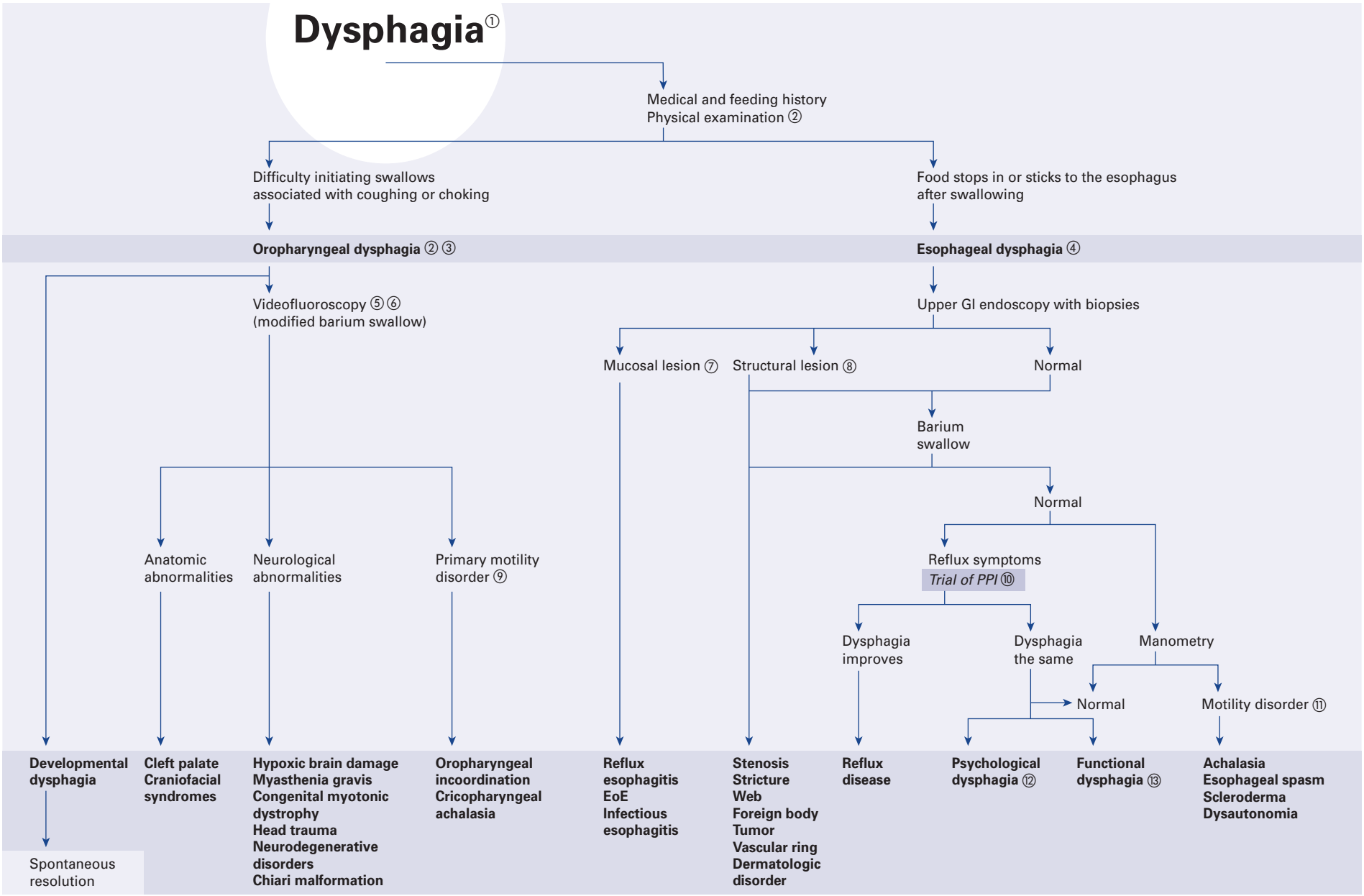

① — Dysphagia is defined as difficulty in swallowing. Accurate pain complaints are difficult to elicit in infants, young children and children with limited cognitive abilities. Untreated dysphagia may be associated with food refusal, FTT, aspiration pneumonias and/or inability to maintain proper nutrition and hydration.

② — Impaired swallowing can be due to oropharyngeal or esophageal dysfunction. History and physical examination of anatomic and neurologic abnormalities should explore for non-esophageal causes. Symptoms of choking, cough, gagging, cyanosis, posturing of head and neck during eating, or food aversion and feeding difficulties are suggestive of swallowing disorders. Impaired neuromuscular coordination of swallowing (cerebral palsy, congenital myotonic dystrophy, neurodegenerative disorders, myasthenia gravis, Chiari malformation, head trauma), abnormalities of the head and neck (mass, goiter) or abnormalities of the oral cavity (macroglossia, cleft palate, micrognathia) are supportive of oropharyngeal dysphagia.

③ — Oropharyngeal dysphagia can be a transient phenomenon in infants upon the introduction of solid food. It is usually associated with mild motor developmental delay or sensory hypersensitivity. Diagnostic procedures are seldom indicated, and the symptoms resolve spontaneously.

④ — Esophageal dysphagia occurs with solid food only, or with both solids and liquids. The associated symptom of odynophagia is highly suggestive of esophageal ulceration.

⑤ — Videofluoroscopy, or modified barium swallow, is the procedure of choice for evaluating the patient with impaired swallowing. Swallowing is assessed by visualizing the passage of barium-impregnated liquids, pastes and pureed foods through the oral cavity, pharynx and esophagus. Fluoroscopy provides objective evidence of oral and pharyngeal dysfunction and detects aspiration. Videofluoroscopy aids in assessing the bolus characteristics (size and consistency) that make food safe to swallow.

⑥ — Impaired oropharyngeal swallowing may be associated with aspiration and chronic airway disease as well as recurrent or chronic pneumonia. In case of proven aspiration, oral feeding is replaced by enteral tube feeding to 'bypass' swallowing. In some cases, swallowing may improve (developmental improvement or rehabilitation after trauma) and oral feeding can be resumed.

⑦ — Esophageal mucosal lesions often present as dysphagia. Upper GI endoscopy is the optimal study to identify mucosal lesions. Peptic esophagitis due to esophageal acid exposure, EoE due to food allergy and infectious esophagitis (CMV, candida, herpes) are the most common causes of esophageal mucosal inflammation.

⑧ — Esophageal intrinsic narrowing may be caused by congenital stenosis or web, acquired strictures (peptic, eosinophilic, caustic ingestion, dermatological disorders), postfundoplication and tumors or after surgical repair for esophageal atresia. Extrinsic compression by a vascular ring may also present as dysphagia (dysphagia lusoria). Evaluations for structural lesions include upper GI endoscopy and barium swallow, even with no endoscopic abnormality.

⑨ — Isolated cricopharyngeal dysfunction is a rare motility disorder in infants and children. Most patients present with feeding difficulties at birth or till 6 months of age. Diagnosis is aided by barium swallow and manometry. Clinical improvement may occur spontaneously or after cricopharyngeal dilatations.

⑩ — In the absence of structural or mucosal abnormalities, concomitant symptoms of heartburn or regurgitation suggest that esophageal sensitivity to acid may be the cause of the dysphagia. Resolution of the dysphagia with PPI therapy implies that the dysphagia was a manifestation of reflux disease.

⑪ — If no structural or mucosal abnormality is found, manometry is indicated. Most nonstructural causes of esophageal dysphagia are due to abnormal esophageal motility. There are primary esophageal motility disorders: achalasia is probably the best known of these and is well defined by the absent esophageal peristalsis and impaired deglutitive LES relaxation. Diffuse or distal esophageal spasm and nonspecific esophageal motility disorder are associated with dysphagia in a few children. Esophageal motility disorders occur in cases of esophageal involvement in systemic diseases, e.g. familial dysautonomia, scleroderma, CIP and graft-versus-host disease.

⑫ — Several psychiatric conditions are associated with dysphagia. Dysphagia may occur as a phobia following a frightening, sensitizing or choking experience with food. It may also occur as part of an anxiety disorder. Finally, dysphagia may be the presentation of an eating disorder, not otherwise specified.

⑬ — The Rome criteria for functional dysphagia must be fulfilled for the preceeding 3 months, with symptom onset at least 6 months prior to diagnosis, and include the following: (1) Sense of solid and/or liquid foods sticking to, lodging in, or passing abnormally through the esophagus. (2) Absence of evidence that GER is the cause. (3) Absence of achalasia.

Selected reading

Owen W: ABC of the upper gastrointestinal tract. Dysphagia. BMJ 2001;323:850–853.
Spechler SJ: AGA technical review on treatment of patients with dysphagia caused by benign disorders of the distal esophagus. Gastroenterology 1999;117:233–254.
Tutor JD, Gosa MM: Dysphagia and aspiration in children. Pediatr Pulmonol 2012;47:321–337.