Human feline oesophagus

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DESCRIPTION
A 54-year-old woman was referred to our department for upper gastrointestinal (UGI) barium study because of heartburn story for 1 month before admission.

Previous endoscopic upper gastro-oesophageal study revealed no pathology.

Upright UGI barium study was normal and showed normal mucosa of the oesophagus (figure 1) but in prone position we noticed: sliding hiatus hernia, gastro-oesophageal reflux (GER) and transient concentric rings of the distal oesophagus consistent of feline oesophagus (figure 2). The patient was treated successfully with antireflux therapy.

Transverse oesophageal folds were originally described in 1970 by Bremner et al as a normal anatomic feature of the cat oesophagus. These folds appear as thin 1–2 mm circular bands in UGI. These transverse thin folds were radiologically described first by Goldberg as a normal finding on oesophagogram of cats.1 “Feline oesophagus” is a pathological finding in human oesophagogram.

In humans, feline oesophagus is usually a transient finding during reflux of barium and is a result of transient contraction of the longitudinally oriented muscularis mucosae secondary to increased intraoesophageal pressure. Feline oesophagus sign must be distinguished from the non-transient or fixed ring oesophageal appearance. Fixed rings are more than 2 mm thick, usually associated with reflux oesophagitis and strictures.2

Feline oesophagus is associated with GER, hiatus hernia and oesophageal motility disorders. In fact when this sign is present, the diagnosis of GER must be included even if GER itself is not seen clearly in the UGI barium study.

Figure 1 Upright left posterior oblique spot image during swallowing of barium showing normal mucosa of oesophagus.

Figure 2 Prone right posterior oblique spot image from upper gastrointestinal study showing transient thin transverse striations ‘white arrows’ (feline oesophagus), hiatus hernia ‘blue arrows’ and gastro-oesophageal reflux ‘black arrows’.
Learning points

▸ Feline oesophagus is a transitory sign which must be distinguished from the fixed ring sign, the latter one is a sign of oesophagitis.
▸ When feline oesophagus is detected, the patient is extremely likely to have gastro-oesophageal reflux, hiatus hernia or oesophageal disorder motility.
▸ Patients with feline oesophagus usually will benefit from the treatment of antireflux.

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REFERENCES