

Differentiation between sigmoid volvulus and free air on supine abdominal radiographs: the 'liver overlap sign' versus the 'football sign'

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In conclusion it must be stated that having seen many cases of free air with a 'football sign' and a few cases of sigmoid volvulus with a 'liver overlap sign', the former diagnosis was favoured. This was also a provisional clinical diagnosis. The fact that free air was conclusively excluded on chest radiographs and a left side down decubitus abdominal radiograph, should have made gastrografen studies of the upper and lower gastrointestinal tract to search for a perforation unnecessary. The gastrografen enema was, however,

of considerable benefit in the diagnosis and treatment of the sigmoid volvulus.

If only a supine abdominal radiograph had been available, which might sometimes be the case, it would have been very difficult to distinguish between a ruptured hollow viscus and sigmoid volvulus. Other signs of pneumoperitoneum or sigmoid volvulus also proved to be unhelpful. (In the first case of possible free air they added to the confusion). The clinical features did not aid in differentiating between

these two conditions and without further conventional radiographs and contrast studies the diagnosis could not have been made. This case illustrates that neither the 'football sign' nor the 'liver overlap sign' are invariable, infallible indicators.

References

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CASE REPORT

Unusual foreign bodies in the oesophagus

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A 70 year old man with a known long segment benign stricture of the lower oesophagus, presented again with dysphagia and the stricture was dilated. Subsequent chest radiographs demonstrated signs of a pneumomediastinum.

An Ultravist 300 non-ionic contrast (Schering AG, Germany) swallow demonstrated a localized, contained perforation of the left lower

oesophagus. Half a dozen rectangular low attenuation foreign bodies were noted within the area of rupture and within the distal oesophagus (Figure 1).

The patient had not been permitted to have anything by mouth and denied having had anything to eat or drink. On more persistent questioning, however, he admitted to being rather partial to lozenges and had not thought that these would be contraindicated. He had surreptitiously sucked the lozenges one by one in the ward, and subsequently the nucleus of each lozenge, a thin hard square wafer, had found its way down to the oesophagus fully intact

in shape, though reduced in size. These wafers were eloquently demonstrated on Ultravist swallow.

The remains of the lozenges were removed at subsequent oesophagoscopy and the patient made an unremarkable recovery with a follow-up contrast swallow demonstrating resolution of the contained rupture.

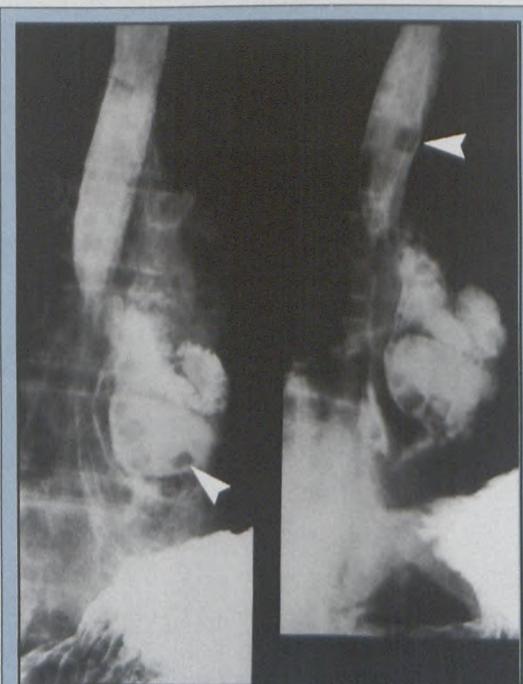


Figure 1: Localized contained rupture left lower oesophagus shown at contrast swallow. Note multiple rectangular low attenuation foreign bodies (arrows) which are the residue of lozenges sucked by the patient over the preceding hours.