Diagnostic Images

Diverse benign cysts

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The patient

A woman aged 22 was referred for sonography because of a lost intra-uterine contraceptive device and subsequently for a gynaecological opinion. She complained of deep dyspareunia for one year.

Computed tomography (CT) was performed in addition to the sonography. A barium meal was also performed on account of upper abdominal pain for one year. No peptic ulcer could be demonstrated but there were thickened oesophageal folds in keeping with oesophagitis.

Figure 1 An ovoid mass (arrows) adjacent to the lower dorsal vertebrae is shown on the barium swallow. However there is no displacement of the oesophagus and the mucosal pattern is normal. The mass lies above the left hemidiaphragm.

Figure 2 Frontal view of the dorsal spine. The left paravertebral mass is seen (arrows) as well as the shadow of the lateral margin of the aorta (curved arrow) and there is no bone erosion or widening of the posterior intercostal spaces.

Figure 3 (a) The mass (arrow) shown on CT to be of water density lies adjacent to the vertebral body behind the aorta (A). The oesophagus (small curved arrow) lies in front of the azygos (curved arrow) and to the right of the aorta. Diaphragm (D) overlies the liver (L) adjacent to the heart (Ht). St – stomach. (b) Mass (straight arrow) aorta (A) and oesophagus (curved arrow) shown at a more caudal level. Small arrows – hepatic veins, St – stomach.

Figure 4 (a) Transverse sonogram showing intrauterine contraceptive device within the uterine cavity (arrow). B – bladder. (b) Cyst (Cy) on longitudinal sonogram lies posterior to the uterus (U). B – bladder.

Comment

Bronchogenic or bronchial cysts (Figures 1–3) result from abnormal budding of the ventral diverticulum of the foregut and develop in the mediastinum or in the pulmonary parenchyma. Usually single, these thin-walled cysts are filled with mucoid material and lined with respiratory mucosa. The majority of non-infected cysts are asymptomatic but infection, often around the cyst, can lead to haemoptysis. These cysts can occur in the paratracheal region, the carina, hilum or abutting the oesophagus, those in the carina and hilum being the most common. The mediastinal cysts are commonly located posteriorly. They appear as homogeneous rounded or oval masses, can displace the oesophagus and in the paravertebral region can be mistaken for lymph nodes. On histology the cyst in this case was lined by ciliated epithelium and the wall contained smooth muscle – diagnosed as a bronchial cyst.

There are three common types of simple ovarian cysts, follicular, corpus luteal and fimbrial (para-ovarian). Follicular cysts are usually less than 6.0 cm but can be up to 10.0 cm in diameter, having thin walls with smooth margins, and although usually single, can be multiple. Corpus luteal cysts are associated with early pregnancy and disappear in the second trimester. Fimbrial or para-ovarian cysts are also thin-walled, often larger, up to 18.0 cm in diameter, may be unilocular or contain septum and can resemble follicular cysts or even cyst adenomas. At laparoscopy the cyst (Figure 4) was no longer present and adnexae and uterus appeared normal, in keeping with a follicular cyst.