

Case 102 A painless lump in the neck



Figure 102.1

Figure 102.1 shows two photographs of a 45-year-old office worker who noticed a lump in the right side of her neck 3 months ago. At first it was small, and she thought it was 'just a swollen gland'. However, she had a mild throat infection a month ago and the lump, although still quite painless, got larger. Now she was getting concerned. She consulted her own doctor, who referred her to the surgical outpatients clinic.

On examination, the lump was smooth, round and not attached to the overlying skin. Its anterior part emerged from under the anterior border of sternocleidomastoid. It fluctuated and transilluminated brilliantly to torchlight.

What is the likely diagnosis?

This has the typical features of a branchial cyst.

There is some controversy about the aetiology of this condition. Can you give an account of the two 'popular' theories of its aetiology?

1 The embryological hypothesis. In the development of the side of the neck, the second branchial arch of the fetus grows down over the third and fourth arches to form the cervical sinus. Normally, this sinus disappears before birth. It is postulated that its persistence leads to the formation of a branchial cyst. There is little doubt that this accounts for the rather uncommon branchial fistula – a track that is present at birth, opens in front of the origin of sternocleidomastoid above the sternoclavicular joint, and tracks upwards almost to the level of the palatine tonsil. Figure 102.2 shows an example of this in a young man.

Part 2: Cases

2 The cervical lymph node theory. The cervical lymph nodes, on histological examination, are often found to contain rests of stratified squamous epithelium. One of these rests is postulated to break down into a cystic space – hence the squamous lining of the cyst. The fact that the cyst may enlarge after a throat infection – as happened in this case – supports this theory.



Figure 102.2 Branchial fistula (arrowed).

What does the fluid inside the cyst look like to the naked eye and what is its microscopic appearance?

The fluid is thick, turbid, yellowish white and looks just like pus. However, under the microscope, it is seen to contain typical cholesterol crystals. This woman's cyst was indeed aspirated in the clinic, to confirm the diagnosis, and Fig. 102.3 demonstrates the macroscopic and microscopic findings.

What may complicate this condition?

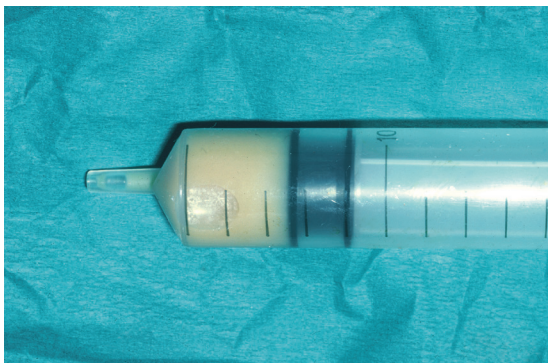
The cyst may become infected, producing an abscess, which requires surgical drainage followed by a rather difficult removal of the now adherent cyst wall to prevent further infections.

Are there any other diagnoses you might have to consider?

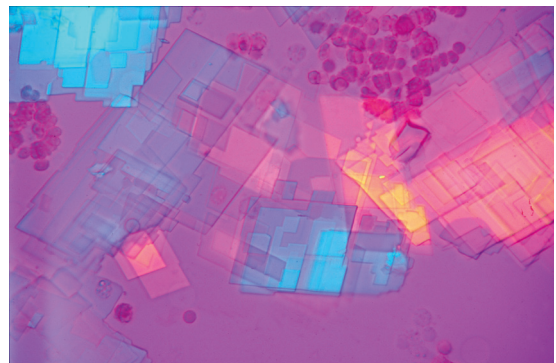
A tuberculous lymph node (see Case 103, p. 214) or, if infected, an acute cervical lymphadenitis.

What treatment do you think was advised in this case?

Elective surgical excision of the cyst, first to obviate the risk of infection and second because the patient was now anxious to get rid of her rather unsightly lump. This was duly carried out as a day case. Figure 102.4 shows the cyst exposed at operation and the excised specimen.

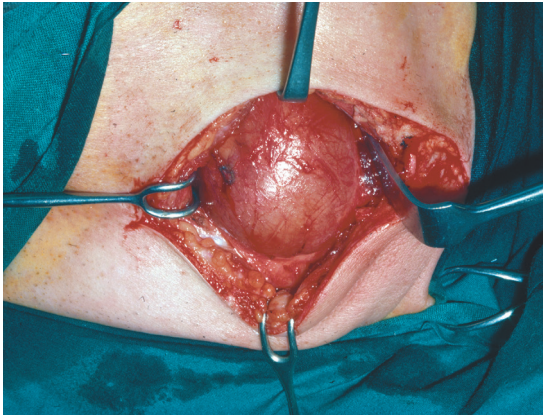


(a)



(b)

Figure 102.3 Branchial cyst aspirate: (a) macroscopic and (b) microscopic findings.



(a)



(b)

Figure 102.4 (a) The cyst as exposed at operation. (b) The excised specimen.