

Case 95

A painless lump in the neck

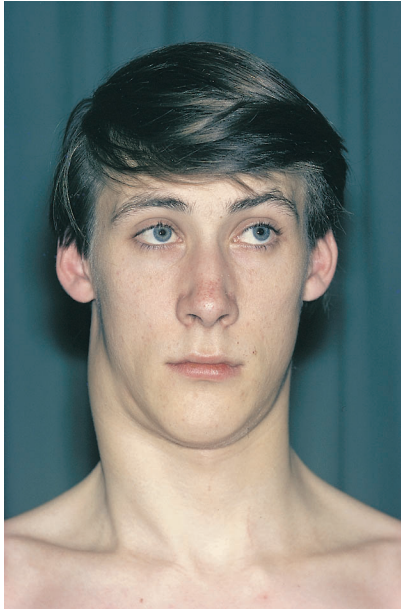


Figure 95.1

This 18-year-old student noticed a small, painless lump in the right side of his neck 3 months previously. He thought nothing about it at first, but it then enlarged quite rapidly to its present size. This brought him to the students' medical officer and then to the surgical outpatient clinic.

On examination, he was a very fit, thin, muscular young man. There was a non-tender mass of discrete rubbery lymph nodes to feel in the right anterior triangle of the neck (Fig. 95.1).

What steps would you now take in your clinical examination of this young man to try to establish the cause of his lymphadenopathy?

- Search the area drained by the involved lymph nodes for a possible primary source of infection or malignant

disease. In this instance, this requires a careful examination of the head, neck and throat.

- Examine the other lymph node areas – the opposite side of the neck, both axillae and both groins – to determine if this is part of a generalized lymphadenopathy.
- Examine the abdomen for splenomegaly and/or hepatomegaly. Their enlargement would suggest lymphoma, lymphatic leukaemia, sarcoid or glandular fever as possible clinical diagnoses.

You have done all this with great care; everything apart from these enlarged, non-tender, rubbery, discrete nodes is entirely negative. Are you in the position to make a provisional clinical diagnosis?

These findings are suspicious of Hodgkin's disease or non-Hodgkin's lymphoma.*

The time has now come to order laboratory and imaging special investigations. What should these be, and how will they assist in establishing the cause of this patient's lymphadenopathy?

- Order a full blood count and a blood film examination. This may show a leucocytosis in the region of $11.0 \times 10^9/L$ with a predominance of atypical monocytes, strongly suggesting glandular fever (infectious mononucleosis), which can be confirmed by the 'monospot' test. A leucocytosis of $100 \times 10^9/L$, with atypical lymphocytes, indicates lymphatic leukaemia.
- Arrange a chest X-ray, which may reveal unsuspected enlarged mediastinal nodes or an unsuspected primary lung tumour. This will require further investigation – a CT scan and biopsy.

*Thomas Hodgkin (1798–1866), curator of pathology, Guy's Hospital, London.

Part 2: Cases



Figure 95.2 Excised lymph node.

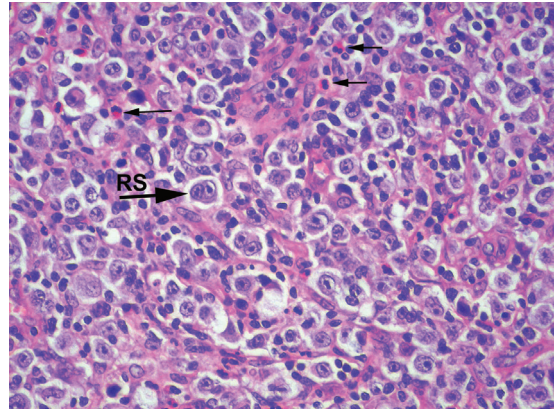
- The diagnosis will be established beyond doubt by removing one of the nodes for histological examination.

A lymph node was excised under local anaesthetic. It shelled out easily and its cut surface is shown in Fig. 95.2. Describe its macroscopic appearance

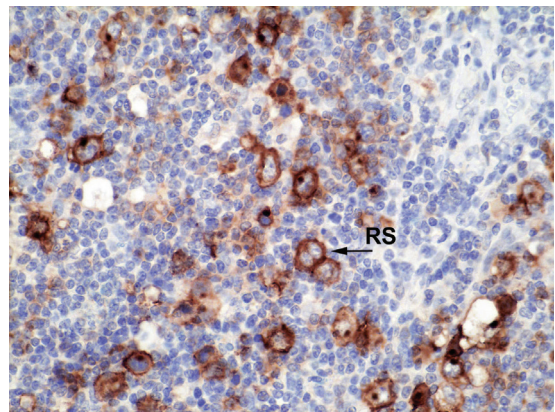
The lymph node appears discrete and enclosed in its own capsule. Its cut surface is lobulated and has a diffuse appearance.

Histological examination showed this to be Hodgkin's disease. What are the characteristic cells seen under the microscope in this condition?

Dorothy Reed giant cells,† also known as Reed–Sternberg cells (Fig. 95.3).‡



(a)



(b)

Figure 95.3 Photomicrographs of Hodgkin's disease: (a) stained with haematoxylin and eosin and (b) an immunohistochemistry slide stained with a CD30 antibody. CD30 is expressed on Reed giant cells (RS) and the stain is used as a confirmatory test of Hodgkin's disease. Numerous eosinophils are also shown on (a), some of which are arrowed.

†Dorothy Reed (1874–1964), paediatrician, Foundling Hospital, New York. She described the giant cells of Hodgkin's disease in 1902 when assistant to William Welch, pathologist at Johns Hopkins Hospital, Baltimore, and clearly distinguished Hodgkin's disease from tuberculosis, both diseases being present in some patients.

‡Carl Sternberg (1872–1935), pathologist, Vienna. He described the cells in 1898, but failed to distinguish Hodgkin's disease from tuberculosis. The cells were actually first described by William Greenfield (1846–1915), an English pathologist, in 1878.