

Case 6 A sore neck



Figure 6.1

This man, a lorry driver aged 60 years, reported to the emergency department with this unpleasant-looking and painful lesion on the neck (Fig. 6.1). He had first been aware of 'something there' 5 days before. It became progressively more swollen and sore, and was now discharging.

What is this lesion called and how is it defined?

A carbuncle. The definition of this is an area of subcutaneous necrosis that discharges onto the surface through multiple sinuses. (A sinus itself is defined as a track leading to an epithelial surface.) It is these multiple openings that give a carbuncle its characteristic appearance.

The neck is the commonest site for this lesion, and it is often produced by excoriation of the skin from the edge of a collar.

What is the usual causative organism?

Staphylococcus aureus. This can be established by bacteriological examination of a smear of the pus and its subsequent culture. Its antibiotic sensitivities are checked.

What are the bacteriological features of this organism?

Staphylococcus aureus is a Gram-positive coccus, which grows readily on culture to form typical golden yellow clumps (*aureus* is Latin for golden). Under the microscope the cocci clump together like bunches of grapes (*staphyle* is Greek for bunch of grapes, as opposed to *streptos*, which means chain, hence *Streptococcus* appears as chains of cocci under the microscope).

What simple laboratory investigation should be carried out on this patient in A&E?

This condition is particularly likely to occur in diabetics. Therefore the concentration of glucose on a capillary blood sample should always be checked and, if this is high, a confirmatory blood glucose estimation performed. Always think of the possibility of diabetes mellitus in a patient with an unusual septic condition, of which this is an example. Other instances are gangrene of the foot, necrotizing fasciitis and severe urinary infection.

In this patient, there was no evidence of diabetes, but the average Emergency Department is likely to pick up several examples of previously unrecognized diabetes each year.

How should this patient be treated?

- A bacteriological swab of the pus is taken for a Gram stain and culture to determine the organism's antibiotic

sensitivities.

- The area is kept clean and is protected with sterile dressings.
- A cervical collar prevents undue movement of the neck and relieves a good deal of discomfort.
- Antibiotic treatment is commenced, usually with flucloxacillin (or erythromycin if the patient states that he

is penicillin-sensitive). The antibiotic sensitivity of the organism will be checked in the microbiology department and the antibiotic changed, if necessary, as a result of this. If the patient is known to be a carrier of methicillin-resistant *Staphylococcus aureus* (MRSA), vancomycin is used instead since these organisms are also resistant to flucloxacillin.