none of the cases quoted was there an interval of less than 12 hours between the first symptoms and the onset of respiratory discomfort (often it was much longer). Since adequate antihæmophilic therapy should reverse the swelling in 6 to 12 hours, the first 24 hours should allow time for assessment of the airway and the making of a decision on what measures are needed to ensure free respiration. This decision, which must be made on purely clinical grounds, may well be very difficult.

One further point must be made here—namely, if the hæmatoma involved the larynx *ab initio*, as a result of direct trauma (Edmonds, 1951). Here obviously there is no alternative to immediate tracheotomy.

Summary

The syndrome arising from bleeding into the tongue, floor of the mouth, and adjacent tissues in hæmophilias is described.

The aetiology and treatment of the condition, with particular reference to the risk of asphyxia and the role that the anaesthetist may be asked to play in the treatment, are discussed.

Twelve further instances of the syndrome, in 10 patients, are described.

Of these, one patient died, two patients required nasopharyngeal intubation to overcome respiratory obstruction, seven cases resolved with antihæmophilic treatment alone, and two required no therapy beyond a short stay in hospital for observation to ensure that spontaneous resolution was taking place.

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STAPHYLOCOCCAL INVASION OF PULMONARY INFARCTS

BY

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Hospital patients run an ever-increasing risk of acquiring secondary staphylococcal infections. These infections are often resistant to antibiotics, for resistant strains may possess increased invasive powers (*Lancet*, 1959). The seriously ill patient has little resistance to staphylococcal invasion, and this added insult may well prove fatal. We have been impressed by the peculiar liability of patients with pulmonary infarction to develop secondary staphylococcal lung infections. Four such cases, seen in a period of 12 months, are described to increase awareness of this complication.

Illustrative Case Reports

Case 1.—A man aged 57 was admitted to the Central Middlesex Hospital on March 14, 1958, with an infarction of the left lung base which followed a superficial venous thrombosis of the right calf. He improved with anti-coagulant treatment, and a week's course of penicillin and streptomycin. On March 23, two days after the end of the first antibiotic course, fever recurred and the temperature rose to 104° F. (40° C.). The sputum became purulent for the first time, and *Staph. pyogenes*, sensitive only to chloramphenicol and erythromycin, was isolated from sputum and stool. He was treated with these antibiotics, but for several days was critically ill with delirium and stupor. The blood-pressure fell to 90/70 mm. Hg, and he received intravenous hydrocortisone for five days. A chest radiograph at the height of his illness showed a massive

FIG. 1.—Case 1. Chest radiograph showing a massive shadow in the right upper zone.

shadow in the right upper zone, presumably resulting from an infected infarct (Fig. 1). Later, breakdown occurred in this area, with the development of a large cavity (Fig. 2). The sputum was free of pathogens on April 21, and antibiotics were stopped. The cavity closed gradually, leaving only some bronchiectasis (Fig. 3). He returned to work after 30 weeks, and at the time of writing has only transient purulent bronchitis following upper respiratory infections.

Case 2.—A man aged 69 was admitted to the Central Middlesex Hospital on November 2, 1957, for right lateral meniscectomy and decompression of the right median nerve. These operations were uneventful and he was mobilized with physiotherapy. On November 11 he sustained a right basal pulmonary embolism. He improved initially with

anticoagulants, but further pleuritic pain developed at the base of the left lung and also retention of urine. A chest radiograph on December 3 showed an abscess of the right upper lobe (Fig. 4), the site being confirmed by lateral film, and sputum contained *Staph. pyogenes* sensitive only to chloramphenicol and erythromycin. With these antibiotics the abscess cavity closed (Fig. 5). After a period of convalescence a retropubic prostatectomy was performed without complication.

Case 3.—A woman aged 73 was admitted to the Central Middlesex Hospital on October 9, 1958. She had spent the previous year mainly in bed after a left hemiparesis, and on the day of admission developed a pulmonary embolism at the left base. The sputum was at first uninfected, but four days later she became much more ill,

FIG. 2.—Case 1. Showing development of a large cavity.

FIG. 4.—Case 2. Radiograph showing abscess of the right upper lobe.

FIG. 3.—Case 1. The cavity closed.

FIG. 5.—Case 2. Abscess cavity closed after antibiotic treatment.

with fever. She was then coughing up purulent sputum containing *Staph. pyogenes* resistant only to penicillin. She slowly improved with chloramphenicol and later tetracycline. Repeated aspiration of a left pleural effusion was necessary.

Case 4.—A woman aged 70 was admitted to Addenbrooke's Hospital, Cambridge, with a fracture of the neck of the right femur. She was treated by the insertion of a nail into the fractured bone. Seven days after operation she had an attack of dyspnoea; several further attacks occurred during the next week. At the end of this time she became pyrexial—temperature 104° F. (40° C.)—and rapidly deteriorated, dying in 48 hours. Necropsy revealed thrombi in the veins of the injured leg and in the pulmonary artery and its branches. Several infarcts were present in the lungs. The largest, in the right lower lobe, occupied about one-third of the lobe and had a soft grey-red central area, which on histological examination proved to be an abscess within an area of infarction. Bacteriological examination revealed *Staph. pyogenes*, type 75, sensitive only to chloramphenicol and erythromycin.

Discussion

Patients with pulmonary infarcts are very susceptible to staphylococcal invasion (Gresham, 1958). When the sputum in such a case changes from blood-stained mucus to haemorrhagic pus, staphylococci are almost always present. Infection probably reached the lung by the bronchial tree, and the haemorrhagic infarct provides an ideal site for bacterial growth.

Hospital staphylococcal infection can be prevented only by rigid aseptic technique, isolation of infected cases, and careful epidemiological study (Ministry of Health, 1959). Particular care is needed to protect ill patients from exposure to infection. When staphylococcal invasion does occur, antibiotic treatment must be energetic and appropriate for resistant hospital strains.

Summary

Patients with pulmonary infarcts are particularly liable to contract secondary staphylococcal infection. Four recent cases are described.

We are grateful to the physicians and surgeons of the Central Middlesex Hospital and Addenbrooke's Hospital for permission to report these cases.

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The Queen's Institute of District Nursing has announced the approval by the Minister of Health of its courses of district-nurse training. The syllabuses of training now available incorporate the recommendations laid down in the Report of the Minister's Advisory Committee on the Training of District Nurses. Centres training under the auspices of the Institute will adopt either the four-months or the six-months course. Students taking either course will, on successfully passing the examination, qualify for the national certificate to be issued by the Ministry of Health as well as for appointment to the Queen's Roll. To achieve a national standard of district nursing was one of the reasons for the foundation of the Institute in 1887, and the Institute regards it as a great step towards the realization of this objective that district-nurse training has now been recognized by the Ministry of Health and that a national certificate will be awarded. Details may be obtained from the Institute at 57, Lower Belgrave Street, London, S.W.1.

DUMB-BELL-SHAPED DERMOID CYSTS OF THE ORBIT

BY

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Harvey Jackson (1951) states that the incidence of dermoid cysts in proved orbital new formations is 6.3%. The majority appear in the upper half of the orbit, more commonly the upper temporal quadrant. The cyst slowly increases in size, eventually to erode the roof of the orbit, to become closely stuck to the bone, and to be in contact with the dura, but rarely adherent to it or invading it. Some orbital dermoid cysts extend into the anterior and middle cranial fossae, into the nasal cavity, and may be attached to the optic-nerve sheath in the apex of the orbit.

When the dermoid has eroded bone the radiographic changes are diagnostic; a well-defined translucent area is surrounded by bone of increased density. In some cases there is broadening of the fronto-malar process (external angular process).

Case 1

Two clinical facts of particular interest about the patient, a young male, are: (1) the recurrence of the dermoid cyst in the upper temporal quadrant of the right orbit after three previous operations to excise it, and (2) the anatomical difficulty in obtaining any typical radiographic evidence of its extension through a 5-mm. defect in the lateral wall of the orbit.

Operation.—The eyelids were stitched together. Fig. 1 shows the incision made through skin and orbicularis muscle along the upper margin of the eyebrow and carried down about 1 cm. posterior to the fronto-malar process, then in a curved sweep over the temporalis fascia and muscle, to end in the crease level with the lateral canthus and along the upper margin of the zygomatic arch. (The upper part of this incision is placed a little lower than that recommended by Dickson Wright (1948) for combined lateral and trans-frontal orbitotomy.) The orbicularis muscle was undermined on both sides of the incision and the flaps thus made were retracted by silk sutures passed through the orbicularis muscle (Fig. 2). The periosteum was incised about 3 mm. from the supraorbital and lateral margins of the orbit and was reflected by a small rugine round the orbital margin,

FIG. 1.—Incision.