GANGRENE OF TONSIL

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GANGRENE of the tonsil is a rare condition which may be due to blood diseases, infectious disease, generalized debility with malnourishment, or a combination of these factors. Kranz (1937) reported a case with generalized lymphatic leukæmia, whilst in 1938 Brunner and Fischer stated "severe gangrenous processes in the oral cavity should be regarded primarily as a characteristic symptom of acute myeloblastic leukæmia". Leúnda *et al.* (1943) described a fatal case, and Rege and Shah (1959) published a case which they thought was secondary to Vincent's angina.

Case Record

History. A boy of 5 years was admitted to hospital from the out-patient department on *April 22nd, 1963.* There was a history of measles 2 weeks previously, since when he had been "off colour" and had been unable to eat solid food for 4 days, with difficulty in swallowing fluids for 2 days. He had occasional vomiting during this time and a swelling had appeared in the region below the angle of the left jaw.

Past History. At the age of 1 year he was admitted to hospital as an emergency after a needle had been pushed into the abdominal wall. Examination was negative and he returned home after 48 hours. At 18 months he was admitted again with a head injury following a fall. He had a hæmatoma of the right frontal region and an X-ray showed a fissured fracture in the right frontal bone. He was kept under observation for 10 days and then discharged.

Examination. He was undernourished, ill, dirty, dehydrated and his breath was foul. Pulse was 130 per minute and his temperature was 100° F. An obvious tender firm swelling was present in the left jugulo-digastric gland region. Trismus was evident; only with difficulty could he open his mouth which obviously caused him some pain. A black gangrenous left tonsil was seen with an erythematous line of demarcation extending from the base of the tongue along the anterior faucial pillar up to the uvula and behind the posterior faucial pillar downwards on to the postero-lateral pharyngeal wall. The right tonsil was injected with a patchy greyish-white membrane. Chest, abdomen and limbs were normal.

Two days later the necrotic left tonsil had almost completely separated spontaneously and it was lifted out of its bed with a pair of Luc's forceps painlessly, without any anæsthetic and with no bleeding.

Investigations

22.4.63. Hæmoglobin 64 per cent. W.B.C. 14,700. Neutrophils 69 per cent.,

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showing a gross shift to the left and well-marked toxic granulation. Occasional plasma cells present.

Wassermann reaction negative.

Swabs from left tonsil: long gram negative bacilli (?) fusiform seen. Otherwise normal upper respiratory flora. No diphtheria, spirochætal forms or yeasts seen. No evidence of mucomycosis.

Lateral X-ray of neck: retro-pharyngeal soft tissue shadows within normal limits and some soft tissue swelling in the tonsillar region which is superimposed on the shadow of the angle of the mandible.

M.S.U. normal.

Serum proteins and a./g. ratio normal.

23.4.63. Swab left tonsil: normal flora containing a penicillin-sensitive staph. aureus. No fungi seen and mycological culture no growth.

24.4.63. Histology on gangrenous left tonsil: necrotic-looking tonsillar tissue 4·5 × 3 × 1·5 cm. Microscopically the tissue is completely necrotic.

25.4.63. Serology:

Cold agglutins, 16	Influenza A and B	Negative
Eaton mycoplasma C.F.T. 1 in 2,048	Psittacosis	
	Q fever	
Streptococcus M.G., 32	Adenoviruses	
	Mumps V. and S. antigen	
	Herpes simplex	
	Paul Bunnell	

Serological findings strongly suggesting a recent or current primary atypical pneumonia due to Eaton mycoplasma.

26.4.63. W.B.C. 6,000, normal differential. E.S.R. 10 mm. in 1 hour. (?) fungi in repeat throat swabs, but not confirmed subsequently.

Treatment

He was treated with soluble penicillin and sulphadiazine, 6-hourly oral toilet, and given vitamins (Abidec drops 10 daily and later Multivite tablets). Subcutaneous fluids were given initially, and as his condition gradually improved, fluids were administered by mouth. On *April 27th, 1963,* he received Nystatin, 1,000,000 units daily in four divided doses orally until *May 5th, 1963,* when the penicillin, sulphadiazine and Nystatin were all discontinued in view of his marked progress. At this time the left side of the pharynx looked as if he had undergone an extensive tonsillectomy. He was sent for convalescence on a high protein diet, and was discharged on *June 7th, 1963,* when there was gross scarring in the left tonsillar region, with difficulty in opening the mouth widely. The uvula was drawn over to the left side and there was some difficulty with speech. He was reviewed on *July 19th, 1963,* when his condition was unchanged.

Comment

This was a case of gangrene of the tonsil occurring in an undernourished puny child who had recently had measles. He was one of a family of seven children living under poor home conditions.

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This is the only case of gangrene in the throat we have seen in recent years. Gangrenous stomatitis or cancrum oris was known to affect children between 2 and 5 years, debilitated by a recent infectious illness, usually starting on the cheek and spreading to the floor of the mouth, jaws and gums, bacteriology revealing buccal commensals only. The mortality was high and in the region of 80 per cent.

Two cases of gangrenous tonsillitis were seen by one of us nearly 30 years ago. These occurred as a complication of agranulocytosis; one case followed gold therapy for rheumatoid arthritis, and the other was due to the prolonged use of amidopyrine, a pain reliever used at that time. Both cases were fatal.

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