Necrotising fasciitis

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Necrotising fasciitis is a rapidly spreading infection that produces necrosis of the subcutaneous tissues and overlying skin. It is caused by β -haemolytic streptococci and, occasionally , Staphylococcus aureus , but may take the form of a polymicrobial infection associated with other aerobic and anaerobic patho gens, including Bacteroides , Clostridium , Proteus , Pseudomonas and Klebsiella . It is termed Fournier’s gangrene when it a ff ects the perineal area and Meleney’s gangrene when it involves the abdominal wall. The underlying pathology includes acute inflammatory infiltrate, extensive necrosis, oedema and throm bosis of the microvasculature. The area becomes oedematous, painful and very tender. The skin turns dusky blue and black secondary to the progressive underlying thrombosis and necrosis (Figure 33.16). The area may develop bullae and progress to overt cutaneous gangrene. It spreads contiguously but occasionally produces skip lesions that later coalesce. It is accompanied by fever and severe toxicity . Renal failure may occur as a result of hypovolaemia and cardiovascular collapse caused by septic shock. The rate of progression is dramatic and unless aggressively treated it leads to serious consequences with mortality approaching 70%. The diagnosis is made on clinical grounds. Creatinine kinase levels may show enormous elevation and biopsy of the fascial layers will confirm the diagnosis. Patients should be admitted to the ICU and trea ted with careful monitoring of volume derangements and cardiac status. Oxygen supplemen tation is beneficial and endotracheal intubation is required in patients unable to maintain their airway . High-dose penicillin G along with broad-spectrum antibi otics, such as third-generation cephalosporins and metr onida zole, are given intravenously . The cornerstone of management Theodor Albrecht Edwin Klebs , 1834–1913, Professor of Bacteriology , successively at Prague, Czechoslovakia; Zurich, Switzerland; and then the Rush Medical College, Chicago, IL, USA. Jean Alfred Fournier , 1832–1915, syphilologist, the Founder of the V enereal and Dermatological Clinic, Hôpital St Louis, Paris, France. Frank Lamont Meleney , 1889–1963, Professor of Clinical Surgery , Columbia University , New Y ork, NY , USA. - - - - - is surgical excision of the necrotic tissue. The devitalised tissue - is removed generously , going beyond the area of induration. - The wound is lightly packed with gauze and dressed.

(b) (c) Figure 33.16 (a) Necrotising fasciitis at presentation and (b) rapid progression seen after 24 hours. (c) Typical bullae and induration.

beyond the edges of the excised wound. In patients who survive, this results in a large wound, which will require skin grafting or flap coverage. Summary box 33.8 Necrotising fasciitis /uni25CF β /uni25CF /uni25CF /uni25CF /uni25CF Recently , the role of hyperbaric oxygen (HBO) has become more established with a reduction in mortality in patients treated with HBO (9–20%) compared with patients who did not receive HBO (30–50%).

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excision repeated every 24 hours Give oxygen and penicillin

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