SOFT TISSUE INFECTIONS

Skin and soft tissue infection can be localized or spreading and necrotizing or non-necrotizing. Local or spreading Non-necrotizing infections respond to broad-spectrum antibiotics. Local, necrotizing infections require surgical debridement and antibiotics. Spreading necrotizing infections are life-threatening surgical emergency and require immediate resuscitation, iv antibiotic and radical debridement.

IMPETIGO

Is a superficial skin infection caused by staphylococci, streptococci or both. It usually affects children and is highly infectious. It is characterized by blisters that rupture and coalesce with a honey- coloured crust. The affected area is cleaned with salty water or antiseptic to remove the crust and topical antibiotic e.g 3% tetracycline applied if staphylococci infection suspected, however systemic oral antibiotic is required if streptococcal infection is suspected.

ERYSIPELAS

Is a streptococcal infection of superficial lymphatic vessels especially those of the face following broken skin. The affected area becomes reddened and oedematous. Patient may develop fever and Leucocytosis. The condition is managed by starting the patient on broad- spectrum antibiotic after taking a swab for culture and sensitivity.

CELLULITIS / LYMPHANGITIS

Is a non-supurative bacterial infection of the skin and subcutaneous tissue. It is associated with previous skin trauma or ulceration. The causative organisms include beta-haemolytic streptococci, staphylococci and clostridia perfrigens. Tissue destruction, gangrene and ulceration may follow due to release of protease. The patient present with all the signs of inflammation, chills, malaise and rigors. This follows the release of the organism’s exotoxins and cytokines into circulation (however blood cultures are often negative). Lymphangitis is part of a similar process and present with painful streaks in the affected lymphatic. It is commonly accompanied by painful lymphnode in related drainage area. Treatment include elevating the affected limb, taking blood for culture and sensitivity, commencing the patient on broad-spectrum antibiotic and draining of localized pus if any.

ABSCESSES

Abscesses may follow a puncture on the skin which has been forgotten, surgery or a metastasis following bacteriaemia. They are caused by pyogenic micro-orgasms predominantly staphylococcus aureus causing necrosis and suppuration.

Abscess present with all features of inflammation (redness, heat, pain, swelling and loss of function). The suppurated part is surrounded by inflammatory response and pyogenic membrane (fibrinous exudates and cells of acute inflammation). Granulation tissue (macrophages, angiogenesis and fibroblasts) forms later around the supurative process and to collagen deposition. An Abscess may resolve spontaneously but often require to be surgically drained. A chronic Abscess may result. If an antibiotic has been used, it is partly sterile forming an antibioma. Abscesses contain hyperosmolar material that imbibe fluid causing increase in pressure and hence pain. Pus usually tracks along planes of least resistance and point towards the skin. Abscess following surgical wounds takes 7-10 days to form and therefore present after the patient has left the hospital. During incision and drainage, all loculi need to be opened and curetted. Persistent chronic abscess may result in Sinus and Fistula formation. In chronic abscesses, lymphocytes and plasma cells are identified. Mycobacterium and Actinomyces are associated with chronic abscesses, sinus and fistula. Abscess in deep cavities such as pleura and peritoneum are difficult to diagnose despite strong clinical suspicion (persistent fever despite broad-spectrum antibiotic) . Ultrasound, CT-scan or MRI can be used to diagnose. The use of antibiotic in the management of Abscess wound is controversial unless there is sign of spreading infection. Delayed primary and secondary suture is safest after granulation tissues are mature and the wound is clean.

PYOMYOSITIS

It is a disease where Abscess forms in large muscles e.g quadriceps, latismus dorsi, trapezius and pectoralis major. It can also involve small muscles. The patient may initially complain of virus like infection presenting with fever, headache, muscle ache, running nose and joint pains. In 2-3 days, the patient develop pain and swelling in one or more of the muscles. The patient become febrile and cannot use the limb. Movements that stretch the muscle are restricted. The tender swelling later become fluctuant. In deep muscles where swelling may not be obvious, muscle spasm may predominate e.g in pyomyositis of illiacus-psoas, the patient present with flexion of the knee. On careful examination, there is swelling medial to superior iliac spine. Complication of pyomyositis include: septic arthritis, Osteomylitis, pneumonia, confusion and shock. Meningitis is a rare complication. Differential diagnosis include; Deep venous thrombosis, Osteomylitis. Management: If diagnosed early, pyomyositis can improve on broad-spectrum antibiotics. Supportive treatment include: elevation of the limb, analgesic/ antipyretic, aspirate pus for culture and incision and drainage (make incision and insert finger to break loculi). NB. If blood comes pouring, pack with gauzes for 24 hours