

Burns and Scalds

Burns and scalds are thermal injuries. A burn is an injury caused by hot solids, flame etc. A scalds is an injury caused by hot liquids or steam. The degree of injury depends on the temperature of the object and its duration of contact with the body. A scalds is likely to be more severe than a burn because the hot liquid may penetrate deeper into the tissues.

Classification :

Burns are classified into three types according to the thickness of tissue involved, viz., *First degree burn* involving only the epidermis; *Second degree burn* in which the thickness of the skin is involved more or less completely but not the subcutaneous fat.; and *Third degree burn* in which deeper tissues like subcutaneous fat and muscles are also involved..

Symptoms:

Physical symptoms: The appearance of the burnt area depends on the degree of burn. In *first degree burn* there is diffuse swelling and some times vesicle formation(A vesicle is a small circumscribed elevation of the epidermis containing a serous fluid). The vesicle subsides within about a week. In *second degree burn* blisters are formed by the exudation of plasma. The exudation may continue for thirty – six – to forty – eight hours. The blisters are very painful. In *third degree burn* the complete thickness of skin plus subcutaneous fat/muscle/other deeper tissues are involved. The dead area of skin appears black and leathery. There may be bad odour.

The area surrounding a burn shows oedema and hyperemia. During healing the dead portions sloughs off. This sloughing is a slow process taking eight to nine weeks. The sloughed tissues are replaced by scar tissue which appears thin, shining and hairless, if hair roots are damaged.

Systematic reaction: There is intense pain and thirst if the lesions are extensive. A varying degree of toxemia is present. Shock develops when the lesions are extensive and severe because of the severe pain and due to the reduction in blood volume resulting from plasma loss through exudation. Septicaemia may develop due to secondary bacterial infection.

Treatment: When the animal showed the symptoms of shock then administration of Plasma or whole blood or plasma extender along with some life saving supportive drug like corticosteroid is must. Local treatment consists of application of emollients or antibiotic ointments. The blisters may be ruptured to drain the exudates. The dead portion of skin covering the blister is not removed at this stage because by doing so the underlying raw surface will be exposed. If the skin surface is eroded, the exposed areas are protected by astringent, antiseptic and anodyne ointments. Local analgesics may be incorporated in these ointments to control pain. Ointments commonly used are tannic acid ointment, iodoform ointment etc. A course of broad spectrum antibiotics may also be administered systematically to counteract septicaemia.

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