

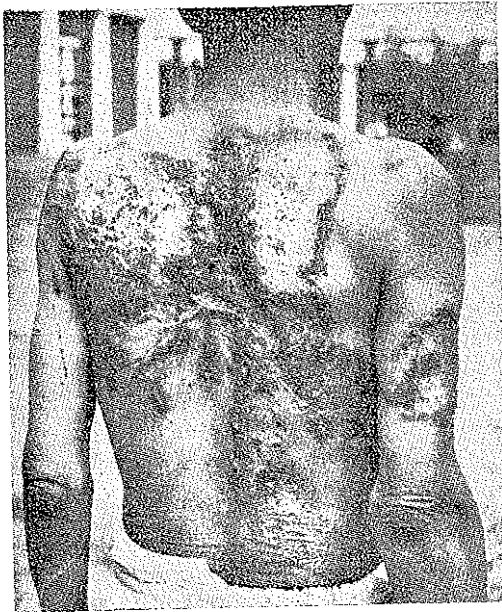
Dermatology for Nurses

By

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Common Bacterial Infections of the Skin

Skin infections, particularly bacterial, are the common dermatoses met with in the practice of dermatology, especially in the tropics because of the heat, excessive sweating, crowding and unhygienic environment.



Extensive staphylococcus infection of the skin of 12 days duration. Case was controlled with a course of Terramycin—organisms being resistant to sulphonamides and Penicillin.

Streptococci and staphylococci are the common pus germs. They produce conditions like Impetigo Contagiosa, Ecthyma, Erysipelas, Sycosis, Cellulitis and Boils. One occasionally sees a case of Anthrax, Tropical sore and Desert Sore in the tropics; their diagnosis and treatment concerns the skin physician whose help should be sought at the least

suspicion of these less common diseases.

Impetigo Contagiosa. As the name suggests, the condition is contagious for others and also for the patients own body where it can be spread by his own hands. The causative organisms are streptococci and staphylococci; diminished local resistance of the skin is essential for development of the disease. Impetigo Contagiosa can occur primarily as such; secondarily, it occurs as a complicating factor in Scabies, Pediculosis and Eczema etc. This second process we call Impetiginisation. The eruption may occur anywhere on the body, but the exposed regions like the face and scalp are commonly selected. It starts as a superficial blister, the contents of which soon coagulate producing a *thick stuck-on honey coloured crust*. This characteristic crust is the most diagnostic feature of impetigo. Whenever such a crust is come across, impetigo—Primary or Secondary—must be thought of. Removal of the crust reveals a moist glistening surface with copious serous secretion which is infectious to adjacent areas, and to other persons. One or several lesions may be seen in one individual. Constitutional symptoms are remarkably absent except in infants. On healing, no scarring is left behind. In debilitated children, the impetigo lesions are rather deeper giving rise to epidermal necrosis thereby producing shallow ulcers (ecthyma). To infants, infection is conveyed by an infected genital passage, nipple or attendants with infected wounds or throat, or from other cases. Impetigo Contagiosa of the new born is a serious condition.

In a maternity ward, Impetigo is dreaded because of its very easy communicability and high mortality rate. Rigorous antiseptic measures are required. Change of staff or even closure of the infected wards may have to be resorted to in certain cases.

In persistent impetigo of the scalp, pediculosis must be thought of and a thorough search made for nits and parasites. Persistent impetigo like lesions on the body are commonly due to scabies. At times, impetigo may become eczematized due to development of sensitivity to the organisms or strong chemicals locally applied.



Impetigo contagiosa in an eighteen months old child. Picture shows bulbus lesions with crusts.

Treatment has improved considerably with the recent revolution in the field of antiseptics and antibiotics. This does not mean that the nurse should be in any way slack with the necessary barrier precautions. The patient should be isolated and have his own towels, clothing and linen which should be boiled before laundering. The affected parts must be kept dry, clean and covered. In the beginning the crusts are removed with warm Condy's lotion, the part dried and an antiseptic lotion e.g. aqueous Gentian Violet 1 p.c., Silver

Nitrate $\frac{1}{2}$ to 1 p.c. or a cream like Vioform, or Spectrocin is applied three times a day. The topical use of penicillin or sulphonamide is dangerous because of local allergic reactions. In extensive impetigo, especially in infants and children, sulphonamides or penicillin or the latest antibiotics should be given systematically. Treatment must be persisted with, till all the lesions have healed completely.

Erysipelas. It is an hæmolytic streptococcus (the same organism that causes scarlet fever) infection of the skin, produced by the entrance of the organisms into the skin through small abrasions and already established wounds. Patient is ill and has a raised temperature and pulse rate. The affected part, usually the face, looks an angry red colour, with raised, well defined margins; it feels hot and firm. The blood count shows polymorphonuclear leucocytosis. The disease is not highly infectious. Erysipelas used to be feared before the introduction of antibiotics, but with their easy availability, prognosis has improved remarkably. There is no need for antitoxic sera and local medicaments. Under the physician's guidance, give a course of sulphonamide, penicillin etc. Within 48 hours of their starting, erysipelas starts resolving leaving behind a normal skin.

Sycosis. It simply indicates chronic inflammation of the superficial part of the hair follicles due to staphylococci, which most commonly affects the beard region but which may involve other hairy regions like scalp, legs and pubic area. Characteristically it is seen as small superficial follicular pustules; some rupture to discharge a bead of pus, the rest drying to form crust. Folliculitis develops rapidly, involving more and more follicles.

Soon the infection becomes chronic, as a result, the skin looks

swollen and congested. Usually no pain is present; itching and burning are the only symptoms. The eruption appears unsightly and annoying. The beard region, chin and upper lip are most affected; later it spreads to other parts. There is no oozing or weeping at any stage.

Staphylococci reach the skin from the nose, throat or entrance through slight injuries or abrasions while shaving. Folliculitis is prone to occur in people working in dusty environments e.g., miners, building workers and sweepers. Oil, tar and chemical workers also frequently develop folliculitis.

The course of Sycosis is chronic, marked by ups and downs and the disease may carry on for years though the outlook is good if proper treatment is given, and the patient cooperates.

Treatment consists of removal of septic foci from nose, throat etc., improving general health with tonics, and avoiding repeated injuries to the parts and being particularly careful whilst shaving. The nurse's main role is the local treatment with antiseptics. Applications usually employed are: Vioform Cream and Spectrocin Ointment. These are applied three times a day. The nurse should wear gloves for all dressings. Loose hair can be removed with epilating forceps. The hair must be kept short on the affected part. Aqueous Genitan Violet 1 p.c. and ammoniated mercury 1 p.c. are useful in patients confined indoors. The paint is applied every 48 hours and the paste dressings applied twice a day over the paint. When pustulation and redness diminish, crude tar and tar paste can be applied as follows:

The tar should be painted on thinly with a firm brush. After ten minutes the area should be dusted with talcum powder, and protected by means of cotton or linen cloth.

This is left in position for 24 hours, after which a dressing of paste should be applied on linen and left for 24 hours. The paste should be removed with olive oil; the part washed gently with soap and warm water and the process repeated.

In the same manner crude tar and tar paste have been used in chronic eczemas with success. In resistant cases, a course of fractional X-ray therapy and vaccines, autogenous or stock, are useful.

Furunculosis. It is a condition familiar to everyone under the common name of boils or '*Phinsis and Phoras*'. There is a deep seated infection of the hair follicle, the root is completely destroyed and it comes out as core of the boil. Multiple boils are given the name of Furunculosis. A carbuncle is a big conglomeration of boils; inflammation spreads from one follicle to the other under the epidermis, intervening corium is destroyed, and pus is discharged through multiple holes. Causative organism is staphylococcus. Furunculosis is a very common skin disease, prevalent in summer and monsoon in the tropics. Maceration of the skin, dusty and dirty environments, and excessive carbohydrate ingestion predispose to the condition. Cases become chronic in the presence of diabetes, chronic nephritis, debility, greasy skin, oily and dusty jobs, scabies and pediculosis. The acute boil is painful, and is accompanied by fever, malaise etc. The pain is of a throbbing nature when a head is formed, and disappears when it bursts and core comes out. When the condition becomes chronic, an annoying itching takes the place of pain.

Squeezing or the incision of an unripe boil is fraught with danger particularly when the boil is on the face (near the eye or corner of mouth). It can prove fatal by the spread of infection to blood producing septicaemia, and venous sinuses of

the brain producing abscess, sinus thrombosis etc.

Treatment. There are three important 'No's' in the treatment of furunculosis—Do not squeeze a boil. Do not lance or incise till it is ripe. Do not use wet dressing or wet fomentations...this macerates the adjoining skin and so lowers the resistance. Acute furunculosis is treated only by a course of sulphadimidine or penicillin systematically, and applying mag. sulph paste or Vioform Cream and draining the boil when it is ripe. Chronic furunculosis is a troublesome condition and treatment can be unsatisfactory. Chemotherapy has little place in its treatment. Locally, Gentian Violet 1 p.c. in 75 p.c. spirit or Lotio Acid Tannici is usually employed. Spirit and tannic acid tend to harden the skin and so prevent recurrence. Pastes

and hot fomentations are definitely contra-indicated. In diet, starchy and greasy foodstuffs should be cut down and fresh vegetables and fruits and animal proteins added. Vaccines, tonics and X-ray therapy are useful in selected case. Causes both environmental and constitutional, need to be corrected in every case.

With the latest advance in Dermatology *viz.*, plastic planning, even the scars of boils, acne and smallpox etc., can be made to vanish. Undoubtedly prevention is better than cure. Trained nurses can play a useful role in this direction. Bacterial infections of the skin are a common problem in everyday life and practice as already mentioned. Nonsensitising antiseptics and antibiotics are to be profitably employed in their control.

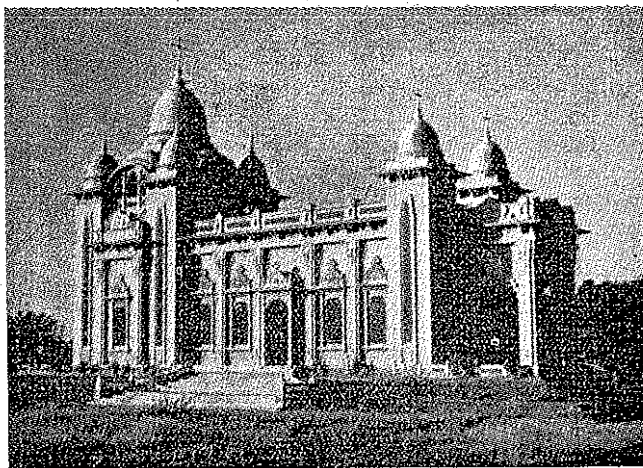
(To be continued)

The Shrine of our Lady of Grace

This beautiful Shrine is in Mokameh within the compound of the Nazareth Hospital and under the care of Jesuit Fathers.

Roman Catholic delegates to the Conference may like to plan to make a pilgrimage to the Shrine. If so they should get in touch with Rev. Sister Florence Joseph, Nazareth Hospital, about their expected time of arrival in Mokameh, and the length of their anticipated stay.

Mokameh is on the main train route and is about a two hour journey from Patna.



The Shrine of Our Lady of Grace, Mokameh.