

Dermatology for Nurses

By

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Common Granulomas & Ulcers

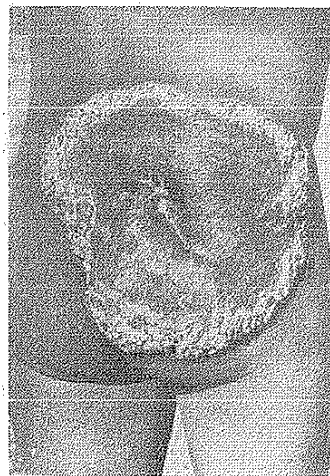
A granuloma is a chronic swelling of the skin due to inflammation or infiltration in the dermis of the integument. Infective granulomas like Syphilis, Tuberculosis, Leishmaniasis, Leprosy, Yaws and Actinomycosis are very common in India and other tropical countries. With timely help, they can be completely cured and their ugly cosmetic effects prevented. Syphilis is an entity on its own and it will be discussed in a separate article on Venereal Diseases later on.

Tuberculosis of the Skin.

It is very prevalent in India. Unlike Pulmonary Tuberculosis, it does not kill an individual, but the destruction and scarring it can produce entails lot of misery to the sufferer. The commonest form is **Lupus Vulgaris** which starts in childhood. The face is the site of choice, though it can affect any part of the body. The usual picture is that of a well defined reddish brown patch with irregular margins. At the healing edge or centre, characteristic tissue-paper scarring is produced. The important diagnostic feature is the demonstration of apple-jelly nodules which are seen as yellowish brown semi-translucent nodules (like those of a cut exposed apple), under the skin when compressed under a glass slide. **Lupus Vulgaris** tends to produce destruction of such underlying cartilages as those of nose and ears; the course is very slow and may extend over years. Tubercle Bacilli are the cause; they reach the skin either by local inoculation or by the lymphatics from tuberculous glands, viscera and bones or by the blood stream from an active or latent tuberculosis foci. A thorough examination and investigations are necessary to establish other foci of tuberculosis in the body

Besides **Lupus Vulgaris**, **Scrofuloderma** and **Tuberculous Wart** are the other cutaneous tuberculous conditions usually seen. In **Scrofuloderma**, the bacilli reach the skin by the lymphatics or contiguity from an underlying active source such as a caseating gland, bone or viscera. So clinically, tuberculous granuloma is seen around a discharging sinus. **Tuberculous Wart** may be seen on the hands or feet of pathologists, butchers, veterinary surgeons and nurses. Accidental inoculation with tubercle bacilli produces a warty indolent nodule. It looks like a common wart with the difference that at the periphery a bluish firmness can always be detected.

The outlook of tuberculosis cutis has been revolutionised with the introduction of Streptomycin, Para-aminosalicylic acid (PAS), Isonicotinic acid hydroxide (INH) and Vit D₂. The previous gloomy outlook is



Tuberculosis skin of long standing

now fast disappearing if such complications as scarring and destruction of cartilages could be checked in time. Inspection of tuberculosis cutis should warrant the opinion of a Dermatologist and only under his directions should treatment be carried out by the nurse. Treatment consists of improving general health, treating the primary focus, Streptomycin $\frac{1}{2}$ - $\frac{1}{2}$ g.m. daily, depending upon age, along with full doses of INH orally for 15-60 days. Vit D2 in the form of calciferol forte or 'Sterogyl 15' for 3 months to 2 years gives good results if the toxic symptoms can be prevented. Along with this regime, local or general U.V.L. exposures (or their modifications) are also useful. Whichever treatment is employed, it must be continued till a complete cure is obtained. Tissue paper scarring is the end-result. In Scrofuloderma, the primary underlying focus must be treated at the same time. Surgical advice should be welcome in such cases. Tuberculous Warts are removed by electro-surgery in the early stages. General treatment on the lines of Lupus Vulgaris can be held back in cases where lesions are not extensive.

Leishmaniasis Cutis : (Oriental Sore).

It is caused by Leishmania bodies which are conveyed by bite of sand-flies or by direct contact with an infected individual.

Oriental Sore is sometimes, but rather unfortunately labelled as **Delhi Sore, Lahore Sore and Baghdad Sore** etc. **Dermal Leishmaniasis** occurs mostly in the tropics. In India, distribution of diseases caused by Leishmania bodies is rather strange, the Eastern States of Bengal and Assam have **Kala azar** and North Western States like Punjab and U.P. have **Oriental Sores**. Lesions occur mostly on such exposed areas as the cheeks, nose, lips, hands and elbow. Usually they are single, but may be multiple and disseminated. Characteristically Oriental Sore occurs as an indurated, bluish red nodule which undergoes



Cutaneous Leishmaniasis (forearm)

erosion giving rise to an indolent ulcer covered with a crust. Healing leaves behind a scar.

Treatment is local in single lesions, and systemic when Dermal Leishmaniasis is disseminated. Local treatment consists of infiltration of the base with 1 p.c. Berberine Sulphate injections (3-6) on alternate days or bi-weekly. X-ray therapy has also been tried with successful results.

Systemic therapy consists of I.V. Urea Stibamine or other organic antimony preparations. The patient should be confined to bed. Antimony is a toxic drug; it is a gastrointestinal irritant and can also damage the heart and liver. The injections should be given under the supervision of a medical man.

Leprosy :

It is a disease about which there exist great ignorance, prejudice and bias amongst lay men as well as the medical profession. History is full of instances demonstrating atrocities committed against leprosy patients. Religious authorities are mostly to blame for it. Leprosy was attributed to visitation by evil spirits or the result of past sins. Thank goodness, some sense is beginning to

dawn on humanity in the last decade or so. Despite all efforts, leprosy is still a social stigma. Although lepers are no longer stoned to death or starved, society still shuns even those cured of the disease. I would advise nurses to study the subject with an open mind in the light of modern advances and also help to disseminate the knowledge to the lay people.

Hindustani equivalents of Leprosy are 'Korh' and 'Nirvana'. It is endemic in tropical countries; in Northern India it is not so uncommon as is the impression of some authorities. Leprosy is caused by *Lepra Bacilli* or Hansen's *Bacilli* after the name of the discoverer, Hansen. The disease is conveyed by close contact for long periods varying from months to years with an open case i.e., one who is shedding *Lepra Bacilli* from lepromatous ulcers on skin, nose and pharynx. Organisms enter abrasions and cuts in the skin and mucous membranes. Incubation period is from many months to years. The disease is generalised affecting skin, nerves and mucous membranes. Children are more susceptible than adults. The disease is rarely congenital and if children are separated from diseased parents at birth, it can be prevented in the off-spring. Recently B. C. G. vaccination in children has been tried with success as a prophylactic measure against leprosy.

Clinically leprosy exhibits itself in two main forms:—1. Neural which shows as thickened ulnar and cervical nerves, trophic changes in hands and feet and patches of partial loss of sensations and pigment. 2. Lepromatous form shows itself as erythematous infiltrated plaques and nodules. In this variety, sensations are not lost in early stages.

Bleeding from nose is another important symptom. History of exposure or contact with an established case corroborates the diagnosis. In a great number of cases, neural and lepromatous lesions are combined to

produce a mixed picture. Slit biopsy of skin and nasal smear show *lepra bacillis*, more so in lepromatous than in the neural variety.

As a rule leprosy is a chronic disease. Under some conditions, a sudden crisis called *Lepra Reaction* may occur in which there is sudden aggravation in symptoms accompanied by fever, malaise etc.

The outlook in leprosy has become hopeful with the introduction of Sulphones and their several derivatives. Trophic ulcers and mutilations can be prevented if early cases are picked up and treated.

Both prophylactic and curative treatments are best carried out in Leprosy Centres and Leprasarium. Every case must be notified to the proper health authorities and infectious cases isolated. A properly equipped Leprasarium is the real place for isolation and treatment of leprosy patients. Here work can be provided under healthy environments. The main treatment consists of giving Diamino-diphenyl Sulphone (D.D.S.—available under the trade names of Avlosulfone, Novotrone etc.) 100 mg. tablet from 2-6 times a week only—dosage being increased slowly. Treatment now is very cheap and does not cost more than twelve annas a month. Therapy should be continued for 3 years or so for complete cure. Toxic symptoms like rashes, anaemia etc. can occur but are minimal if proper precautions are taken. No local treatment is necessary except dressing of ulcers, and eye lesions. After cure, patient should be socially rehabilitated. Surgery plays a useful role in correction of deformities. Cure rate of leprosy with modern Sulphone drugs is satisfactory.

Yaws :

It is a contagious, non-venereal disease prevalent in South India particularly Hyderabad, and Assam. *Spirochaeta pertenus* is the causative organism which is conveyed by direct contact with the infected individual.

Primary lesion or Mother Yaws is extra-genital. In the second stage characteristic lesions on the soles of feet and raspberry-like lesions on the limbs and trunk are come across. Unlike Syphilis, there is itching. The eyes and mucous membranes are unaffected. In the tertiary stages there are no visceral, cardiovascular or central nervous system lesions. Periosteal nodes, sabre like deformities of bones, destruction of cartilages and nails are the important features at this stage.

Kahn and Wassermann Tests (of Syphilis) are positive. Treatment is with Intra-muscular Procaine Penicillin 2 to 4 mega units in divided dose and Bismuth injections.

Actinomycosis :

It is seen in two varieties : 1. Actinomycosis bovis is world wide. The fungus is found around carious teeth and tonsillar crypts. From these locations, infection can spread to jaw, (Lumpy Jaw), lungs, or intestines producing chronic granulomatous abscesses. 2. **Antinomycosis Madura**—seen in South India as **Madura Foot**

occurs only in the tropics. The fungus is found in the soil, enters a abrasion on the foot producing a chronic swollen suppurating deformed foot with sinuses; discharge containing sulphur granules.

Treatment is with Iodides, Sulphadimidine and Penicillin combined with surgery.

Ulcers :

These are circumscribed lesions representing loss of epidermis and dermis. They denote a break in the integrity of skin. Acute ulcers are usually traumatic or septic. When an ulcer is tending to become chronic or does not respond with the usual antiseptic measures, the nurse should call for medical, preferably dermatological opinion. Chronic ulcers are either infective e.g. Tuberculosis, Leprosy, Leishmaniasis, Syphilis, Fungus etc., or neoplastic (Rodent ulcer or Epithelioma); or trophic in which the resistance of skin is lost due to disturbance in sensations or circulation. Varicose ulcers are a group on its own. They accompany varicose veins.

Public Health — (Contd. from page 89)

becomes imperative for a person to work in any field of service of which the factory is second to none. There are particular needs to be met in all categories. The nurse as a Health Educator in the factory can help to promote the general health of the workers by educating them in healthful living. She can also be of assistance in the prevention of occupational diseases or injuries by educating the worker with regard to the nature of work, and thus preventive, remedial and education work can be effectively carried on both in

and outside the factory.

In the light of the growing emphasis on Health Education, let us remember that it is not confined to any stage of human life but the role of the nurse as a pioneer of health in her varied fields of service is a continuous one. It is through concentrated and coordinated effort that one reaches a certain goal. The nurse of to-day has an important role to play in rendering health services to the individual, family and community, for nursing is not only service to the sick, but to the well also. (Concluded)

Health in middle age depends in considerable measure on two things :
a wise choice of ancestors and moderation in eating, drinking and living from
our younger days upward.
—Kelhy