Dermatology for Nurses

By

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Dermatitis & Eczema

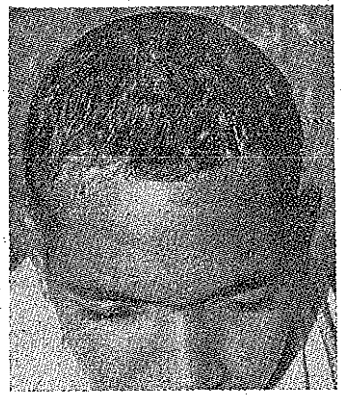
Modern nursing is based on scientific knowledge ; it is necessary for the nurse to be acqainted with the basic facts before he or she can do real justice to the patients. With this object in mind, Dermatitis and Eczema are going to be discussed in detail before taking up their treatment and nursing. One attends to and works for what one knows ; it is human nature to ridicule what one does not understand.

Next to skin infections, dermatitis and eczema are the most important dermatoses come across in the practice of Dermatology. Dermatitis literally means inflammation of the skin, but the term is reserved for the skin inflammatory conditions caused by primary physical, chemical or electrical irritants. It starts immediately after contact with an irritant in sufficient concentration, and lesions are confined to the point of contact with sharp demarcation form of healthy skin. The main features are redness, blister formation and ulceration ; the intensity of the irritant decides the exact nature of lesion. Common examples of Dermatitis are : Sun burn, frost bite, X-Ray burn, dermatitis due to acids, alkalies, poisonous ivy, lime burn etc.

The Hindustani name for eczema is '*Chambal*'. It is an allergic type of inflammation in a sensitive individual brought on by an exposure to a sensitiser. The word **Allergy** was first introduced in medicine by Von Pirpuet of Vienna in 1906. According to him, **Allergy** means :

"Potential capacity of tissues to produce an altered reaction *i.e.*, a reaction different to that which it would normally produce in an average individual."

This term, it is sad to note, is loosely used by most students and practitioners of medicine. I may point out for your information that Indigenous and Homeopathic systems of medicine are very defective in their approach to the subject of eczema. In their passion for panaceas, they view the subject superficially and forget about the basic causes which vary from individual to individual with the obvious outcome that the gullible population are exploited and their suffering increased manifold.



Eczema of the Scalp

This condition is frequently saen in India and fortunately responds very well to such mild anti-sceptics as Gentian Violet 1% or Vioform Cream.

Main lesions of Eczema are :

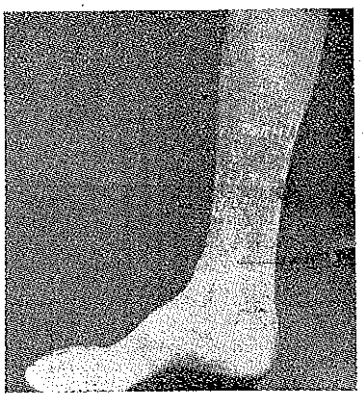
Erythema ← Papules with œdema of skin ← Vesicles,

Thickening and Pigmentation. ↖ ↓ ↓

Healthy skin without scars ← Scaling ← Weeping, Crusting and Pustules.

On the face, acute eczema produces œdema of eyelids to the extent of closure of the eyes. Over the page is the diagrammatic precis of the natural history of eczema ; different lesions represent different stages in the cause of its development and healing. The labelling of an eczema by morphological means is to be regretted. For the production of eczema, two factors are essential ; firstly, allergic skin, and secondly, exposure to an allergen, that is, the substance to which the patient is allergic. In contrast to dermatitis, eczema is restricted only to certain individuals and the allergens are never pharmacalogical irritants. Itching is an important subjective symptom of eczema. I will now take up a few important varieties of eczema for discussion :

Chemical Eczema is the eczema caused by external contact with chemical agents in plants, external medicaments, cosmetics, clothing and occupational chemicals. **Chemical Eczema** develops 12—72 hours after contact with the offending agent. Brisk œdema and uniform vesiculation are features dominating the eruption. Unprejudicial history and patch tests are of considerable help in finding the exact allergen. The failure to discover the cause results in chronic Eczema. Examples of Chemical eczema are : eczema of face due to cosmetics or neck furs ; suspendor dermatitis-nickel, Feet-shoes, Sulphonomide ointment—eczema around wounds.



Chemical Eczema

This illustration depicts the condition which developed a week after the application of Sulphonamide powder and ointment to a leg injury. Successfully treated with 1% Silver Nitrate Solution.

A word about **Patch Test.** What we do in this test is to apply the suspected offending agent to a patch of skin usually on the back or front of forearm. Material is applied in weak dilution (to exclude primary irritants), and the part is covered up and the patch is allowed to stay in contact for 48 hours. If itching develops over the patch, it may be removed earlier. Positive reaction shows itself as redness, œdema and vesicle formation. The test should always be controlled and should be done only when the eczema has subsided.

Infective Eczemas.

These are due to sensitiveness to certain organisms like streptococci, staphylococci, ringworm and yeast organisms. **Pyodermacial** and **Infective Eczema** are both caused by bacteria, but clinical lesions are quite different because of the sensitiveness of the individual. Infective eczemas are very common in India ; about three-fourths of the hospital cases fit in this category. These eczemas usually start after a crack in the integrity of the skin by injury or otherwise. It may involve the hair follicles as in hairy regions of the scalp, beard and legs or the body folds like retro-auricular folds, eyelids, neck folds, axillae, bends of elbows, groins and popliteal fossae. Infective eczemas are infectious to a certain degree and need mild antiseptics for their treatment.

Infantile Eczema.

This occurs in infants from 3 months to 2 years. It usually starts from the cheeks, spreading slowly to forehead, chin, scalp, arms, neck and legs. Redness, vesicles, oozing and crusting are typical lesions.

Spasmodic itching is very troublesome, making children restless, miserable and fretful. Course is marked by relapses and remissions. Parents and attendants must be reassured that Infantile Eczemas are not infectious and they would heal without scarring unless secondary infection sets in.

Atopic Eczema.

It is also called the **Asthma Eczema Syndrome**. There is a strong familial predisposition to allergic diseases like Asthma Eczema and **Hay Fever**. Patients usually suffer from both asthma and chronic eczema. Emotional stresses, besides allergy, are important factors in causing acute flare ups. Thickening and pigmentation of skin accompanied by severe itching are the prominent features affecting bodyfolds like front of elbows and back of knees.

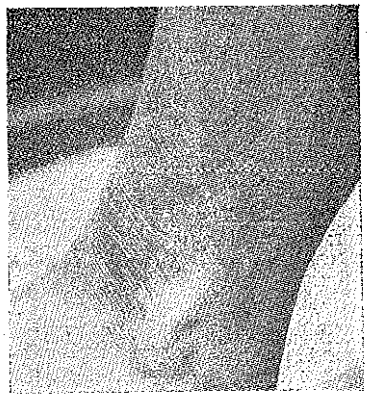
Dissemination of Eczema.

When primary eczema is acutely irritated by medicaments or otherwise, toxic products are liberated and absorbed into the blood. These toxic products bring about dissemination of eczema. If the process is widespread, generalised eczema may develop, which may even involve the face, accompanied by swelling of eyelids. The patient feels and looks ill.

Varicose Eczema.

It is simply a chemical or infective eczema complicating varicosed veins or ulceration of the legs. Chronic congestion and stasis of blood lowers the resistance of the skin, thus predisposing to eczema development. Similar situation is created by hypostasis following 'white leg' in pregnancy. The dorsum of feet and lower part of the legs show telengiectasia, œdema and pigmentation produced by varicose veins.

There are few eczemas which are caused by allergy to food, drugs and some products of metabolism within the body. The outlook in dermatitis and eczema rests mainly on the correct elicitation and complete eradication of cause or causes. Nurses are in a privileged position because of their constant attendance ; Sherlockian observation on her part can help the physician a lot. Dermatitis and eczema are curable conditions. Except for infective eczemas, they are not infective. On healing, no scars are left behind. A trained nurse can reassure the patient on these points.



Neuro-dermatitis

Note the exaggeration of the normal criss-cross pattern of the skin.

The skin is a superficial subject and so easily available for excessive, and ill treatment. It is a matter for great regret and concern, that potential sensitisers are sold freely for minor skin ailments and also advertised as panaceas in the lay press, a common example is sulphonamide powder and ointment for ordinary injuries and infections. Not only is a useful drug wasted but the patient may suffer from resultant eczemas. Simple acriflavine is much more useful for dressings.

Treatment comprises mainly of reassurance to the patient and his relatives on the lines recommended and elimination of causes. Symptomatic treatment relieves symptoms. It must be properly carried out to get complete cure. Half-hearted measures carried out in an inefficient manner are least helpful ; on the contrary they are

demoralising. Principles of symptomatic treatment are :

Rest to the part and correction of environments. Change of climate is helpful in chronic eczemas. In eczemas due to external agents, the affected parts must be protected to ensure complete elimination of offending agents *e.g.*, the face by a proper mask (from shoulder to shoulder and sternal region to back of root of neck, of course, providing holes for eyes, nostrils and mouth.) Similarly hands, feet and parts of trunk can be bandaged. No cotton wool must be used in bandaging ; it retains heat, thereby worsens eczemas. Thin cotton bandages or cloth should be employed. Besides excluding the offending agent, the dressing protects the part from injury by scratching. In **Infantile Eczema**, this object is very important. After the part has been dressed, hands and feet can be tied to the bed ; *precaution should be taken against accidental strangulation*. The dressing is an important component of dermatological nursing.

There are no panaceas for cure of eczemas and dermatitis ; how shockingly, Homœpathic and Ayurvedic practitioners confuse the lay public. The few drugs which are available are for symptomatic relief of itching, insomnia, debility etc.

Local treatment depends upon the morphological appearance. **Weeping Eczemas** expect the use of astringents in the form of wet soaks and lotions.

Agents employed with benefit are Silver Nitrate ½ to 1% in aqueous solution, and Lotio Calamine. They should be applied every 2—4 hours till the eczema dries up which takes from 48—72 hours in most cases. In infective eczemas, the crust should be removed with Condy's fluid or starch/boric acid poultrice followed with an application of Silver Nitrate lotion, or Lotio Gentian Violet ½—1% in aqueous solution. Gentian Violet has the drawback of colouring the skin. Vioform Cream and the latest antibiotic ointments are also useful for infective eczemas.

When the eczema is scaly or papular, Bis subgallas and amylum paste or zinc paste are recommended. They should be thickly applied on linen or lint and part bandaged. The paste is changed twice a day. In **Chronic Eczemas,** crude tar, tar paste, superificial X-Ray therapy, and Hydrocortisone ointment are the ones tried successfully.

I trust that with this information in their hands, nurses can play a useful role in assisting the physician to cure his patients. They can also educate the public along scientific lines ; thereby, getting rid of superstitious ideas and quacks.

[*To be continued*]