

OUR PRIZE COMPETITION.

WHAT FIRST AID WOULD YOU RENDER TO A CHILD WHO IS BURNT OR SCALDED, AND WHAT ARE THE DANGERS TO GUARD AGAINST? STATE WHAT YOU KNOW ABOUT THE DEGREES OF BURNS.

We have pleasure in awarding the prize this week to Miss Lena H. Innes, S.R.N., Royal Hospital for Sick Children, Edinburgh.

PRIZE PAPER.

There are few, if any, surgical emergencies which call for such prompt treatment as the effects produced by burns and scalds. The associated shock is most severe; the danger to life very great. Constitutional treatment must be instituted at once. The patient is one person's care, and where possible an assistant would prepare a bed or other convenient resting-place, fill hot-water bottles or substitutes, protect them thoroughly, and have blankets and bed warm.

If clothing has been worn at the time of injury it should be removed as quickly and carefully as possible. Each garment should be cut away and all unnecessary movement of the patient avoided. When the injury is very extensive, combined with destruction of skin, the clothing may be very adherent to the raw surface. A good plan is, after cutting away what is possible, to immerse the patient in a warm bath (temperature 100° F.), to which may be added a proportionate quantity of sod. bicarb. or sod. chlor. These substances have a soothing effect. This procedure, apart from facilitating the removal of clothing, aids in diminishing shock. (Medical permission should be first obtained.) The temperature of the bath is maintained by adding warm water as required. This treatment having been completed, the patient is wrapped in a clean, warm sheet and put to bed in the recumbent position, with the head lowered. In emergency, blocks at the foot of the bed may be substituted by two low chairs or a collection of old books.

The wounds are thoroughly protected. It is essential to exclude air, and to avoid exposure of the entire surface at a time. Consequently the dressing should be applied in strips. Where the skin is broken a simple dressing of clean rag wrung out of a solution of sod. bicarb. \mathfrak{z} i to Oi sterile water may be applied. Carron oil, which is a popular application, has the disadvantage of readily becoming rancid, and should therefore not be used. Cover the moist dressing with a light layer of wool and fix with a bandage.

If the injury is in the neighbourhood of a joint, it is advisable to apply a splint to obviate the tendency to contraction of scar.

The patient must be stimulated and kept very warm. Unlimited fluids, viz., warm tea, coffee, milk, Bovril, should be given frequently. Brandy in small doses at intervals of four hours is often necessary. Saline solution (normal) may be given per rectum. Water may be given freely, with the addition of sod. bicarb. (gr. v to gr. xxx, according to age), every four hours; also a solution of glucose \mathfrak{z} ss to Oi water, in small quantities frequently.

Dangers to guard against are: Increased shock, sepsis, exhaustion, hæmorrhage, congestion and infection of internal organs, particularly lungs, kidneys, alimentary tract. Great attention must be given to diet, which should be light, nourishing, and easily digested, on account of the associated irritation of viscera and tendency to ulceration of duodenum. Very mild purgatives should be given to aid the elimination of toxins. Urine should be examined frequently for presence of albumin and blood.

Burns and scalds are divided into six classes or degrees:—

1. *Erythema* or *Redness* of affected part, due to dilatation of superficial blood-vessels.
2. *Vesication* or *Blistering*, when the epithelium and epidermis are separated by a collection of serum.
3. *True skin is destroyed* and nerve terminals exposed. This the most painful type.
4. *Fat and subcutaneous tissues* are destroyed.
5. *Muscle* is destroyed.
6. *Whole limb* is charred to the bone, and invariably has to be amputated.

The factors which determine the severity of a burn or scald are:—

- (1) *Age* (children and adults bear shock badly).
- (2) *Extent* (if injury involves one-third of body, even if of first degree, the prognosis is bad).
- (3) *Situation* (burns of chest and abdomen are very serious).

The mortality from burns and scalds is unfortunately very high.

HONOURABLE MENTION.

The following competitors receive honourable mention:—Miss Phoebe Goddard, Miss R. S. Dodd, Miss M. Ramsey, S.R.N., Miss A. M. Burns, Miss Helen Blackwood.

Miss Goddard mentions skin grafting to avoid contraction: (1) Autogenous (from other parts of the patient's own body); (2) Homogenous (from another person); (3) Heterogenous (from frogs).

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