

SKIN DISEASES AND BURNS

- 453 Optimum Temperature for Post-Burn Cooling. T.C. King and J.M. Zimmerman. Arch. Surg. 91, 656 (1965).

The process of cooling the surface of fresh burns is shown in this paper to change the course of the developing wound, in that edema is decreased by the resultant inhibition of changes in capillary permeability. The optimum temperature for this purpose was found to be about 5°C. (41.0°F.), with satisfactory degrees of inhibition at any temperature below 17°C. (62.6°F.). Cold compresses can be made by adding a few ice cubes to a pan of water from a cold water tap. Such a beneficial immediate treatment of burns should be stressed in first-aid teaching to lay personnel.

-- Can. Med. Assn. J. Absts.

- 454 Hospital Isolation System for Preventing Cross-Contamination by Staphylococcal and Pseudomonas Organisms in Burn Wounds. B.W. Haynes, Jr., and M.E. Hench. Ann. Surg. 162, 641 (1965).

Although antimicrobial agents provide an effective means of combating infection, the most significant factor in the control of wound infection is prevention by means of asepsis. Acknowledging this, an attempt was made to isolate patients in an inflated plastic bag with a console that provided pumps, filters, passage-ways for sterile transfer into and out of the isolation system. The isolation, after 149 patient-days' experience, proved an effective barrier against cross-contamination, using Staph. aureus, coagulase-positive, as the indicator organism. The device proved both workable and tolerable for the patient. This technique is suggested as a way of investigating the problem of self-infection in man. It is postulated that the gastrointestinal tract is an important repository for Pseudomonas aeruginosa, and that it is possible to prevent wound infection by this organism by intestinal antiseptics and total isolation.

-- Can. Med. Assn. J. Absts.

CHEMICAL HAZARDS

- 455 Naturally Occurring Toxic Factors in Plants and Animals Used as Foods. F.M. Strong. Can. Med. Assn. J. 94, 568-573 (March 19, 1966).

Toxic substances occurring naturally in various foods and feeds have been listed, with particular reference to lathrogens, pressor amines, azoxy glycosides, labile sulfur compounds and a few others. The possible deleterious effects of such substances on man and animals have been pointed out and the relationship between the consumption of foods containing these compounds and the use of monoamine oxidase-inhibiting drugs has been emphasized. Considering the myriad chemical substances consumed by human beings in their everyday diets and in view of the complex inter-related metabolic mechanisms required to handle these compounds in such a way as to benefit the body and to protect it from harm, it seems obvious that a great deal of investigation will be needed in the future before it can be said with certainty that a given food is safe under all conditions. Furthermore, it is quite possible that, with expanding knowledge in this area, an understanding of the cause of some previously mysterious diseases may be forthcoming. There are 39 references.

-- Author's summary

- 456 Toxic Factors of Mould Origin. (Toxic Factors in Foods). A.J. Feuill. Can. Med. Assn. J. 94, 574-581 (March 19, 1966).

The chemistry and effects of mycotoxins associated with human and animal food stuffs are reviewed. The aflatoxins, metabolites of Aspergillus flavus, have been implicated in fatal diseases of farm stock fed on infected peanut cake. Muscarine and the phalloidins are the causative agents in mushroom poisoning. Lysergic acid alkaloids are involved in ergotism. "Yellow rice" toxicity arises from infection with Penicillium islandicum, the active principles being islanditoxin and luteoskyrin. Various species of Penicillium, Aspergillus and Fusarium have been linked with other mycotoxicoses and their metabolites characterized. Several fungal metabolites are active hepatotoxins or carcinogens, and the possible etiological significance of moldy foods is briefly considered, especially in relation to the high incidence of tropical liver disease. Better agricultural practices and more stringent testing to control and detect fungal contamination are advocated. There are 51 references.

-- Author's abstr.

- 457 Food-Borne Bacterial Toxins. F.S. Thatcher. Can. Med. Assn. J. 94, 582-590 (March 19, 1966).

Food poisoning caused by the ingestion of preformed bacterial toxins is considered in relation to comparative symptoms, procedures for extraction and purification of the causal toxins, their chemistry, serology, assay procedures, and pharmacology, in so far as these are known. The