

Numquam periculum sine periculo vincitur: Just in case of a nuclear abrupt world conflict. Prevention and treatment of injured epidermis

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Sir,

During the last decades, events creating large numbers of casualties have, with infrequent but depressing repetition, absorbed the attention of the world community. In these years, nations have increased to sufficient population densities and have developed technologies of sufficient power to create the conditions for sudden catastrophe, whereby in a relatively brief time span an enormous number of people may be killed or injured. When discussing nuclear war, reference to precedent may admit sources of serious error, since in terms of scale of effects, this disaster would depart fundamentally from anything the world has yet experienced. Yet people still struggle to comprehend what nuclear war might mean, if only to give better warning now. As part of this attempt to make real the unimaginable, it is instructive to inquire into how massive numbers of casualties have been managed in the past. The perspective taken here is the organization of medical response.

The current theory of mass casualty management rests on the concept of triage, according to which casualties are sorted into categories by severity of injury and treatment plans assigned to each based on assessment of transport availability and resources. The word is said to derive from the French *triage*, meaning the process of sorting by quality, and its use in the wool and coffee trades during the eighteenth and nineteenth centuries carried the distinct connotation of separating higher from lower quality [1]. Although

the process of prioritizing military casualties on the basis of wound severity has been traced to Baron Dominique Jean Larrey, surgeon in chief of Napoleon's Russian Campaign [2], the term *triage* was first applied in this context during World War I [3]. The British Expeditionary Force used *triage* to mean *division into three*: those who could withstand travel back from the front, those who required immediate surgery, and those whose injuries were so severe that they would be left to die [4,5]. The U.S. military command currently prefers the term *sorting*, but in all other respects relies on the concept of triage in its protocols for mass casualty management.

As far as our discussion is concerned (the wounds evoked by ionizing and radioactive rays) and all the skin injuries caused by these rays (radiomimetics are comprised), we have to distinguish several chemical remedies but even vitamins or enzymes or catalyzers (that will be included in the category of Various).

The most important are.

Thiols (HS-R) (Cysteine; Omocystine; Bethamercaptoethylguanidine; BAL (BAL was more effective than DMSA in reducing lewisite-induced skin injury; Tioctic acid; Thioglycol)

Amines (R-NH₂) (Tyramine; DOPA; Nor-adrenaline; Guanethidine; Reserpine (latency of 24 h.); Oxitocin)

Hydroxyls (R-OH) (Propylene glycol glucose; Fructose; Formic acid; Pyruvic acid; Succinic acid; Glucose;

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Fructose; Formic acid; Pyruvic acid; Succinic acid; Caprylic acid; Salicylic acid)

Anoxics (CO; Sodium cyanide; Para-aminopropiophenone)

Chelants (Penicillamine)

Enrichers (Ascorbic acid; Citrine; Rutine; ATP; DPN; RNA; Oestrogens (latency of 12 h.); ACTH; DOCA; Thyroid extracts)

Various:

Largactil (because topically spread acts as a fabulous hypothermal agent);

Drugs encouraging hibernation;

Fluoroacetates (that chelating Ca and Mg create turbulence in Krebs's cycle);

All these chemical remedies might be applied on the skin injures diluted in DMSO);

B6 and B12 may be administered both orally and topically., and the same is valid for ascorbic and pyruvic acid.

Dosages must be rigorously doubled respect to the normal dosage usually employed, in order to obtain the skin protection from ionizing and radioactive rays.

It must be stressed that all these drugs and complements are not efficient to treat photosensibilization.

In a future the AA will discuss about the second step of the occurrence of nuclear skin injury (psychological aspect) and photosensibilizers as xanthenes and acrydines).

Consent

The examination of the patient was conducted according to the principles of the Declaration of Helsinki.

The authors certify that they have obtained all appropriate patient consent forms, in which the patients gave their consent for images and other clinical information to be included in the journal. The patients understand that their names and initials will not be published and due effort will be made to conceal their identity, but that anonymity cannot be guaranteed.

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