

5. The vapor of iodine exercises an irritant action on the mucous membrane of the air-passages. It induces efforts of coughing, and augments the secretion of the mucus of the air-passages. This irritating action may be utilized: (a) To diminish the swelling of the mucous membrane by causing the inflammation to pass from the first to the second stage; this indication is present especially in cases where the inflammation occupies the small bronchi; the swelling of the mucous membrane is sufficient to give rise to fear of respiratory insufficiency. (b) To diminish the viscosity of the products of morbid secretion by their admixtures with the mucus, of which the vapors increase the formation. (c) To induce efforts to cough, and to disembarass the air-passages from the products which are there accumulated.

6. It is not only by its irritating properties that the vapor of iodine modifies the mucous membrane of the air-passages. Iodine in reality possesses the property of stopping purulent secretions, and, on the other hand, it arrests and prevents putrescence. Thus, when the mucous membrane of the air-passages yields a purulent secretion, resulting either from an acute inflammation in the third stage, or from a chronic inflammation, the inhalation of iodine will determine by degrees the quantity of pus, and finish in certain cases by entirely changing the nature of the secretion, which becomes completely mucous.

7. Although the essence of turpentine, in the fluid condition, is a sufficiently powerful irritant for the tissues with which it is placed in contact, inhalation of this essence is easily supported by the mucous membrane of the air-passages. It only brings on very moderate irritation, and very rarely provokes fits of coughing.

8. When the mucous membrane is affected, and yields a product of secretion, these vapors have the effect of diminishing the quantity and augmenting the consistence of this.

9. If the product of the secretion be purulent, the inhalation of essence of turpentine, continued during a sufficiently long time, progressively diminishing the quantity of pus, may, in certain cases, completely stop the secretion. The inhalations are indicated in all affections of the larynx, of the trachea, and of the bronchi, when accompanied by a very copious muco-purulent secretion without viscosities. On the other hand, the use of them must be avoided whenever expectoration is difficult, in consequence of the too great viscosity of the products of secretion.

10. In cases when these products are at the same time very copious and very viscous, it is possible, by alternate inhalations of vapors of iodine and vapors of turpentine, to rapidly diminish the quantity of secretion without increasing its viscosity. The inhalation of iodine should always be used in the first instance.

11. Inhalations of essence of turpentine is indicated in hemoptysis, and is very successful in cases of hemoptysis of average intensity.—*Detroit Lancet.*

THE PATHOLOGY AND TREATMENT OF BURNS.

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INTRODUCTION.

There is no accident calling for prompter treatment at the hands of the general practitioner than that painful injury, a burn; and it is an incumbent duty on him to collect as much practical information as possible relating to this frequent emergency: a more fit or interesting subject I could scarcely select for inviting the attention of the professional reader.

Great differences of opinion exist to the present time among the most experienced surgeons with regard to the treatment best adapted to this painful accident, each one extolling his own favourite remedy, and advocating its use to the exclusion of all others; and, in my opinion, burns have been treated in past ages in a purely empirical fashion, without any regard to fixed principles. But before proceeding further on the subject of treatment, I will endeavour to give some general descriptions of the nature of a burn.

PATHOLOGY.

The application of a heated substance to the surface of a living body gives rise to the injury designated a burn, the degree of such injury being proportionate to that of the heat of the substance applied, varying also according to the nature of the substance, and the period during which it is applied to the body. A burn due to oil at a boiling temperature will prove far more severe than when caused by boiling water, the former possessing a greater capacity for caloric than the latter, and its temperature, consequently, being higher in proportion. Oily substances, moreover, adhering with more tenacity to the skin, while water merely flows on it, the degree of injury must be proportionate. Heated metals will burn more severely than either oil or water, while such substances as burn rapidly and enter into a state of fusion (such as phosphorus, sulphur, and the resins) cause the deepest burns. By a *burn* proper we designate injury from application to the body of extreme heat through the medium of a solid body, or of actual fire; but a *scald*, a similar injury due to the contact of heated liquids or vapours; but the foregoing shows their action and effect to be analogous.

Burns have been variously classed by different authors.

Hester divides them into four classes or degrees:—(1st) heat and redness; (2nd) blisters; (3rd) when an eschar is formed; (4th) where all the tissues are destroyed to the bone.

Dr. Kentish divides them into two classes:—(1st) where the action of the parts is alone increased; (2nd) injuries where the action of some parts is increased, and the organization of other parts destroyed.