

The limb in common with the whole body is cold; after reaction sets in, heat may return completely or partly. It may remain icy cold. When this frigid state of the limb persists more than forty-eight hours, it is a certain precursor of mortification.

Dupuytren was the first who called attention to the importance of this symptom in prognosis here. He found by the use of the thermometer that the temperature in a limb about to mortify is lower than that in the dead body, and that of the surrounding atmosphere. When along with this abstraction of heat, sensation is lost, a greenish-gray color covers the skin, and a gaseous crepitation is felt under it, the parts are hopelessly mortified, and decomposition is advancing.

Happily in a considerable number this advent of mortification is not so sudden, the temperature gradually lowers; here and there are other significant symptoms that will warn us of its approach. A gradual diminution in sensation, with changes of color in the skin, especially near the toes, with total loss of power in the damaged limb, is often a forerunner of mortification when the lower extremity is damaged. But it is important to know that the behavior of a gravely traumatized limb, in the beginning, varies; a badly injured limb is much like a grave injury of the body, of which it is but an appendage.

For example, in some instances, one is killed outright; in others, after a varying period, deep shock passes off and the patient recovers; in others, again, full reaction never sets in, but collapse gradually deepens and the patient sinks.

So in some crushes of a limb; it may be killed outright, as it were, animation never returning. In others, the member is but temporarily devitalized; there is a species of "suspended animation," the circulation returning after varying intervals. In another class there is but an imperfect return of the vital processes, and death of the limb sets in. This last type, in my experience, is alarmingly mortal to the tissues and calls for prompt amputation.

*Traumatic Gangrene.*—This type of diseased action is frequently encountered after nearly every description of serious injury of an extremity or any of its appendages. As it is dependent on a variety of causes, so it presents a considerable diversity of phases. Its fundamental etiological factors are chiefly two: (1) Violence to the tissues, mechanical disorganization; (2) chemico-septic changes consecutive to injury. As an illustration, great violence being applied to a limb, its main arterial trunk is damaged and the vitality of the parts is imperilled by anemia and impending asphyxia, until the collateral circulation is established, which is not enough, perchance, to preserve and nourish all the distant parts. The too tight application of a splint, in a fracture, may shut off the lumina of the