

formed. Antero-posterior flaps were made. Very little bleeding took place. All veins and arteries filled with soft clotted blood. Wound healed by first intention.

All cases of gangrene may be classed as traumatic, infective or spontaneous. The case cited does not evidently belong to either the variety caused by injury nor to infective agents, so must come under the head of spontaneous gangrene. This is recognized by (1) well marked prodromata; (2) slow progress; (3) the imperfect vitality of the neighboring parts. Injury may play some part in its production, but is generally too trivial to cause the death of the tissues directly, and there is an absence of the grave signs of infection.

Several varieties of spontaneous gangrene are recognized:

(a) Gangrene from arterial thrombosis or embolism, met with in the convalescence of acute illnesses, especially typhoid and in the subjects of heart disease. The cause, symptoms and course exactly resemble gangrene following the ligation or rupture of a main artery. The patient suddenly experiences a severe pain, more often in the leg than in the arm. The part is found cold, anesthetic, slightly livid, loss of pulsation in the arteries, and the case goes on to dry or the mixed variety of gangrene.

(b) Senile gangrene. Generally in old subjects with weak hearts, rigid tortuous arteries and a feeble circulation.

(c) Diabetic gangrene. In those suffering from glycosuria.

(d) Obliterative or proliferative arteritis leading to gangrene. This occurs oftener in men than in women; more common in the lower than the upper limbs and in those of middle life. The limb affected has for some time been the seat of a very painful ischemia, made worse by cold and relieved by warmth. The part is cold, blue mottled and a little edematous, heavy and benumbed, and the main artery for some distance above the gangrenous area is found hard and pulseless.

(e) Raynaud's, or symmetrical gangrene.

(f) Trophic gangrene, due to paraplegia, hemiplegia, locomotor ataxia, spina bifida, syringomyelia, or diabetes leading to peripheral neuritis.

The symptoms presented in the case under consideration point to arterial thrombosis or embolus as the cause of the trouble. The general good health of the patient and the absence of heart disease would lead one to suspect some local change in the arterial wall with secondary thrombosis.