

intermissions, in a constant state of clonic spasms, and until the flexors of the leg had been divided.

They may be met with, irrespective of time, when contracted muscles are put upon the stretch.

Whenever the reflex pains prevail, the patient suffers most severely; loses flesh and appetite; becomes anæmic, and prostrate, and the disease of the joint progresses with marked rapidity.

According to my clinical experience, the reflex pains chiefly accompany bone diseases, and in these they are most severe. In synovitis they are certainly much milder, if at all present.

In some instances the reflex pains assume the character of genuine neuralgia, and follow the course of the principal nerves; in others they discharge their violence upon certain groups of muscles, painfully oscillating and cramping them, leaving them in a state of cataleptic tension.

With the symptom of reflex pain, two others are very soon ushered in:—

1st. *Attenuation of the affected member.*

2nd. *Muscular contraction.*

The wasting of the affected extremity is as common a symptom of articular diseases as it is conspicuous. The adipose tissue becomes rapidly diminished, and finally extinct; the muscles lose their bulk and normal contour, the bones lose in circumference and length; the extremity assumes a cylindrical shape; its growth is arrested; the animal heat is below the standard of the body, and in cold weather the extremity presents that mottled appearance which is so common in paralysis.

The symptom of attenuation is co-ordinate with that of muscular contraction, and never observed without the latter.

Among the many hypotheses advanced in explanation of this symptom, that of Barwell is about the most superficial, ascribing it to the permanent compression of the capillaries within the muscular structures. At best this theory would apply to the waste of muscles, but leaves the other structures of the extremity out of account.

Without entering into a digest of the various opinions, I shall content myself with offering my own. It requires, indeed, no great pathological acumen or diagnostic sagacity to reduce that symptom to its proper source. It consists not only in the diminution of substance, but the arrest of growth is so prominent, that impeded innervation and impeded nutrition must be charged with the mischief, for which pathology furnishes ample analogy.

In club-foot, for instance, the very same conditions prevail, the same attenuation—the same arrest of growth and development—the same