

## SUEGERY.

### NEUROMIMESIS.

#### LECTURE ON THE NERVOUS MIMICRY OF JOINT DISEASES.

By SIR JAMES PAGET.

(CONCLUDED.)

When you have learnt to feel accurately the heat of a joint, you may safely rely on it for some certainties in diagnosis. A joint that feels all over cold, or cool, or not above its natural temperature, is not an inflamed joint: whatever may be the other signs of inflammation in it, it is not inflamed; you may rely on this. In the hip and shoulder, however, this test of temperature is not easily applicable. The thickness of various textures covering those joints is too great for additional temperature to be transmitted through them. But in the knee and elbow, and other smaller joints, even those of the fingers and of the tarsus and carpus, the test is easily applied and sure; and remember always, in using it, that, in most persons, the front of the knee-joint, and, in a less degree, the back of the elbow, are habitually cool to the touch—cooler than the arm and leg; and that in many the feet are rarely warm in health. These local variations, however, can lead to no confusion if you follow the rule—which, for other reasons as well as this, ought to be never neglected—of comparing every suspected joint with its fellow. Besides, always compare the temperature of the joint with that of the rest of the limb, for the rest of a limb may be, through disease or long defective nutrition, cold; and if one joint in it be always not cold, though it may not be fairly called hot, this may be through its being inflamed. I repeat, then, a joint which is not above its natural temperature is not an inflamed joint. But observe, besides, some rules within this rule.

A joint when first exposed for examination may feel over-warm. This may be due to its having been very warmly wrapped, or thickly covered with water-dressing, or in some other way hindered from cooling to its natural temperature. Wait, therefore, and observe whether, after a few minutes' exposure to cool air, the joint has become of the same temperature as its fellow or as the rest of the limb. If it have, you may be very nearly sure it is not inflamed: or your suspicions that it is inflamed may increase with the time during which its cooling is delayed. Frequently only a part of a joint is: in this case the morbidly high temperature can be felt only over the inflamed part. This limitation of a sign of inflammation which one might suppose easily diffusible is a striking fact. It is the same with the swelling, which, especially in scrofulous inflammations of joints, is often limited to a single portion.

Not rarely, when you feel a joint quite cool, the patient will tell you that it, nevertheless, is

at times very hot or burning hot, and that with this heat it swells and becomes red. Such cases are common among those in which the consequence of sprains and other injuries are very prolonged in nervous persons, or even in healthy persons whose joints have been too long treated with cold douches or too long kept at rest. These joints are commonly reported as getting very hot every evening, and as being subject to painful heats, tingling and burning. In any case you may decide that the joint is not inflamed. If it were, it should be over-warm all day and all night. The occasional heat is only due to flushing, such as some nervous people have in their faces after their meals, or such as women commonly have at the time of ceasing to menstruate. I call it flushing, not blushing, for it is not associated with any mental state; indeed, it may seem strange that, among all the nervous people with joints that are the constant objects of their attention, one never sees blushing of the skin over them when they are being looked at. All such turgescence and transient heat are consistent with complete absence of organic disease. Doubtless the same thing may happen in inflamed parts; they are sometimes hotter than at other times, more swollen and more painful, having periods of exacerbation; but then they are never of natural temperature—they are always more or less too hot. It is very different with the mimics of inflammation in joints; here the over-heat is only at times, at night or at some nearly regular hour, or after exercise or fatigue. A joint which is cold by day and hot by night is not an inflamed joint—that is certain.

The certainty of the diagnosis based on coldness is, if possible, increased by coincident dusky-ness of the skin—by its having a dull purplish tint which is commonly called blue or a dull pink. Such colours may be seen at joints long inflamed, but in these cases they are associated with over-heat; when they are associated with coldness, they are characteristic of anything rather than inflammation. Besides, with inflammation the colours of over-fullness of blood-vessels are only at the inflamed parts; with congestion in cold nervous joints they are commonly much more widely diffused.

Lastly, as to fever associated with a supposed inflammation of a joint. It may help you to diagnosis in some few cases, chiefly in those in which the pain is very severe, or in which there are other signs like any of those of acute inflammation. For no very acute inflammation of a considerable joint can exist without fever; and therefore, when a patient's general temperature is normal, you may be very doubtful, to say the least, whether an intensely painful joint is inflamed. But the reverse is not true; the temperature may be frequently or habitually high, though a suspected joint be only neuralgic or in some other mimicry of acute disease. For the

patient may be tuberculous, or, with some casual illness, may have a high temperature, or he may be recently convalescent from acute fever. Moreover, a very slight degree of inflammation in a joint in a very nervous person may be associated with a disproportionately high general temperature. This is in accordance with a general rule already mentioned—that in those with alert and mobile nervous systems a slight local inflammation may produce or be associated with a great increase of general temperature. In similar persons, fatigue or passing excitement will raise the temperature to 100°, or, I think, to 101°; and in their convalescence from acute illness—a condition in which nervous mimicry, as well as real joint disease, is apt to appear—they have widely variable temperature. You must therefore hold, in a general rule, that, in very nervous persons, the temperature must be studied many times, and with circumspection, before it is counted as an addition to the evidences of their having real joint disease. Within the last few days I have been very nearly deceived in such a case. A gentleman, about thirty, had what he described as frightful paroxysmal pain in one knee—pain such as might have been in the most acute inflammation of the joint; and there were some heat, some swelling, and a general temperature of 101°. These things had “come of themselves” within three or four days, and the patient looked very ill. Of course he was treated cautiously; and all subsided so quickly as to make it sure that no serious, if indeed any, organic disease had existed. It was a nervous mimicry ensuing upon excessive and unsuccessful work.

## THERAPEUTICS.

### NITRITE OF AMYL.

Having his attention particularly directed to the nitrite of amyl by its effect in a case of angina pectoris, to which it gave immediate relief, Dr. Amez-Droz (*Archives de Physiologie* for September, 1873) was led to study the literature of this subject, and to endeavour to ascertain by experiment the physiological action and therapeutic value of the drug. The article is briefly as follows:

When the vapour of nitrite of amyl is inhaled by man, it produces redness of the face, marked pulsation of the carotid and temporal arteries, occasional palpitation of the heart, sometimes a sensation of vertigo with headache, and an acceleration of the pulse. The cough excited in some cases by its inhalation is evidently due to the irritating effect of the vapour on the bronchial mucous membrane. Although no dangerous toxic results in man have yet been reported, because the feeling of distress and sickness which supervenes almost immediately upon the commencement of the experiment prevents a continuance of the inhalation, such results undoubtedly