

tion, it is sufficient to say now that pain in the right testicle, with or without its retraction, indicates the direct involvement of the genito-crural nerve. The same may be said also of the ilio-inguinal, anterior crural, etc., when pain is referred to their respective distributions, in connection with recognized or suspected appendicitis.

*Tenderness.*—This, the second of the inherent manifestations of appendicitis, may be either local or general, superficial or deep, keen or dull, depending on the extent, location and character of the inflammation and the variety of the tissue involved by it. If the extra-peritoneal connective tissue be first involved, as when the appendix is located behind the colon, or behind a cæcum not surrounded by peritoneum, or outside the peritoneum elsewhere, and, perhaps, between the layers of the broad mesentery of the appendix, the tenderness is local, deep-seated, and dull at the outset. That such cases as these are rare is obvious, on account of the great infrequency of appendices there placed. Quickly, however, the dull tenderness is supplemented and obscured by the acute variety, due to the rapid extension of inflammation to the contiguous peritoneum. The rapidity of the supervention of the acute pain is in direct proportion to the gravity of the lesion and the amount of the connective tissue involved by it. Dull tenderness of much duration is indicative, therefore, of a post-colon position of the appendix, and especially is this true in the absence of a meso-colon, which, according to Treves, happened in 52 per cent. of the subjects examined by him. Acute tenderness is, of course, strong proof of the involvement of the peritoneum, and its location may be accepted as indicating the site of the initial lesion, when it is circumscribed and marks the outset of the attack. If this fact be true, then, indeed, no definite point of tenderness can be established that may be regarded as diagnostic of this disease. The varying directions of the appendix already cited; the differences in its length, and in the situation in it of the point of greatest disease; together with the fickleness of the location of the cæcum from which it arises, all conspire to make the establishment of such a point impossible, and a reliance on it impracticable and misleading. Of general tenderness I will say but little, since it cannot be regarded as indicative of a circumscribed process, and is, therefore, not

to be considered as of much practical bearing on the arrangement of the appendix. It is proper, I think, to say that in those cases of appendicitis observed by me in which the diseased appendix was "free," the area of tenderness was far greater than in those not so freely movable.

*Tension.*—This expression refers mainly to tension of the abdominal walls; a tension tint may be limited to the side of the attack or be more or less general, according to the extent of the inflammation associated with it. The presence of this tension phenomena is of beneficent significance, and should incite the profoundest respect of the most sceptical minds. The motor nerve fibres that animate the abdominal muscles are from the lower intercostal, and are intimately connected with the sympathetic, supplying the abdominal viscera, through the lower thoracic ganglia from which the splanchnic nerves are derived. As a result of this arrangement, in acute peritonitis, the muscles of the abdomen become quickly and finally contracted, and thus shield the underlying viscera from external force, and keep them as quiet as it is possible to do by physical means alone. Tension of the right rectus abdominus in appendicitis is an early and important symptom, and indicates the presence of limited peritonitis, and fulfils the conservative purposes already stated. And for these reasons the left rectus goes on guard too, when its subjacent viscera are similarly involved. Muscular tension in this disease is not limited entirely to the abdominal walls, since the psoas and iliacus muscles also, from nervous involvement or direct implication, contract, causing flexion of the thigh. The bladder and rectum become fretful often, especially if the diseased appendix extends into the pelvis or be attached to the peritoneum at its brim. The cremaster muscle exercises its prerogative on the testicle, if the genito-crural nerve be implicated.

*Tumor.*—This symptom is of dual importance on account of its diagnostic and therapeutic significance. The former attribute alone concerns the tenor of this paper. That the situation and extent of the diseased appendix has much to do with the location and the determination of the presence of tumor cannot be denied. Generally speaking, the location of the tumor indicates the situation of the lesion, and it is especially significant, if the tumor be small, firm, deep seated and