characterized by a fairly distinctive course, yet the diagnosis usually depends upon the differentiation of symptoms varying in character and degree, more or less common to all of them. These symptoms may arise primarily from the disease itself, or often secondarily due to a superadded infection, or from the mechanical effects of the lesion upon the urinary passages. Thus pain, hæmaturia, pyuria, interference with the normal function of the kidneys or failure of the general health may occur in any of these conditions. The difficulties in the way of diagnosis are further increased from the fact that in all of these conditions *multiple foci of involvement* may be present in a given case, affecting widely separated areas of the urinary tract. As it is usually for one or more of the symptoms above mentioned that the patient first seeks relief, I wish to consider a little more in detail some of the points in differential diagnosis—(1) of the diseases themselves, (2) of the location of disease, (3) the difficulties presented, and (4) the limitations of the ordinary diagnostic methods.

(1) Pain as a general and localizing symptom. This is one of the commonest and most useful diagnostic symptoms in these diseases, yet it is well known that it may sometimes be entirely absent in any one of them. While often fairly characteristic as in renal colic, yet in many cases neither its presence, character nor distribution can be depended upon either to indicate the nature or location of the trouble. Thus blood clot, particles of tumor, obstruction from kinking of the ureter in nephroptosis, pressure of tumors upon the ureter from without, or infections, may all produce symptoms closely simulating renal colic.

Again right-sided ureteral calculus may so closely simulate appendicitis as to deceive even experienced surgeons. In two of the cases of this disease which I have seen during the past year appendicitis had been diagnosed and the patient operated upon without relief.

In rare instances the pain may be on the side opposite to the lesion. This was the case in a patient of mine in whom tumor of the left kidney had been diagnosed and the patient operated upon. Intermittent profuse hæmorrhage had continued, and the tumor enlarged so as to be readily palpable on the right side. She was operated on by Dr. E. E. King and a large hypernephroma removed, the patient making a good immediate recovery, but ultimately died in nine months from pulmonary metastases.

Tumors of the bladder occurring as they so frequently do near the ureteral orifice, may produce pain in the *corresponding*