kidney, while at other times calculus in the lower end of the ureter may produce vesical symptoms.

In a case which I had with Drs. Uren and Silverthorn in St. Michael's Hospital during the past summer the patient suffered from intense pain above and to the left of the umbilicus. A firm tumor could be palpated in this region, movement of which caused the pain to radiate into the left inguinal region. The patient's general condition did not permit an operation, and at autopsy we found a hypernephroma completely surrounding the upper part of the ureter. Here the urinary findings were entirely negative.

That even cystoscopic examination, ureteral catheterization, X-ray, etc., may at times fail was shown by a case which I recently saw with Drs. A. Adams and Cummings, in which recurring attacks of pain, apparently typical of renal colic, were entirely negative to these methods.

Next to pain, possibly hæmaturia is the symptom for which patients most commonly consult the physician. While this symptom is often associated with others which help to establish the diagnosis, it often remains for a long time the only evidence of trouble. This *symptomless hæmaturia* was well recognized by the older clinicians, Sir Wm. Gull speaking of some of them as renal epistaxis. Anyone with a large experience in urinary analyses will recognize it as one of the most difficult of all urinary conditions to diagnosticate. It is now more generally recognized than formerly that it may be an early symptom of interstitial nephritis or may occur at intervals throughout the course of the disease. It may even be due at times to an area of nephritis localized in one kidney.

Fenwick says interstitial nephritis accounts for 12% of cases of painless hæmaturia. French authors were the first to emphasize the importance of this symptom, and described cases characterized by it as hæmorrhagic nephritis. Cystoscopic examination has shown that the hæmorrhage is often from one kidney only. In my experience these cases are not at all uncommon. A typical example came under my observation a year ago last summer. A young man of 17 years of age in February, 1908, had his tonsils removed and a few weeks later began to suffer from profuse hæmaturia. This would abate for a short time to be followed by exacerbations. Hyaline, granular and blood casts were always present. X-ray and other examinations were all negative. Under rest, careful diet, calcium salts, turpentine, etc., he has gradually improved, though slight albuminuria, cylindruria and microscopic hæmaturia still persist.

As painless hæmaturia also occurs at times in tumor, tuber-