The onset is often insidious and may escape observation unless constitutional symptoms develop. The first symptom that may be noticed is a vesical irritation which may last from a few hours to several days, when the patient is suddenly seized with more or less paraxysmal pain, most commonly located in the right lumbar region. Rigors, high fever, and vomiting may now be present. At first the urine may be quite clear, but after a certain time will be found to contain large quantities of pus. The presence of pus in the urine may be intermittent. Constipation or diarrhœa may be present. The pain may be complained of as being most acute in the upper portion of the abdomen to the right side, or in the right lumbar region behind, whence it radiates downwards into the groin or thigh. If untreated or unrecognized rapid loss of flesh occurs, the patient becomes cachetic. General septic infection follows and death finally closes the scene.

It is probable that the disease is more common than is generally recognized, as the lighter cases escape observation.

Transient albuminuria associated with heavy deposit in the urine is probably due to the occurrence of mild attacks of pyelonephritis. The condition has been ascribed to the compression of the ureter on the brim of the pelvis resulting in its dilatation. The pressure of the uterus, which by the fifth month has enlarged sufficiently to project well above the brim, is the probable cause. Tortion of the uterus, which is extremely common, favours traction upon the ureters, thus causing their lumen to be flattened. The right ureter is the one most commonly affected. The dilitation consequent upon this pressure results in damage to the mucosa of the ureter, thus favouring the development of localized infection. It is probable that at first hydronephrosis is present, subsequently, after infection developing into pyelonephritis.

The infectious process may be due to an extension upwards from the bladder or it may be derived from the blood.

In pregnancy the infecting organism is usually the colon bacillus, and is probably derived from the intestine, as it is frequently noticed that gastro intestinal disturbances of an indefinite character precedes the onset of the condition.

Streptococci, staphlococci, gonococci and the bacillus enteritis have been found present in a few cases.

The urinary contents vary considerably. Pus, blood, epithelium, and granular debris are usually present. Albumin is noted in varying amounts. The reaction is usually acid, though in neglected cases, where cystitis is present, it may be alkaline.

The facts, first, that pus may not appear in the urine for several days