Diseases Simulating Cystitis in the Female.

Mr. Hurry Fenwick, F.R.C.S., Senior Surgeon to the London Hospital, contributed to a recent issue of *The Clinical Journal* an interesting article on the above subject, in which he deals with that class of renal diseases which simulate inflammation of the bladder so accurately that they confuse diagnosis, discourage the patient, and depreciate the best efforts of the medical practitioner to relieve. He writes in part:—

"Do not some of us still cling to the belief that washing out the bladder is the panacea of any and every case of cystitis, and when relief is thereby obtained that our diagnosis of cystitis is confirmed? Is it not true, however, that our faith in this treatment has been sadly shaken in one or two cases by finding that months of bladder-washing has been love's labour lost, and our patient in consequence sadly recognises that we are not infallible, and that her faith in our skill is rudely shaken by the failure of a very unpleasant and often painful process?

"Now, the fact is the cases we do not readily succeed in relieving by bladder wash are generally renal or ureteric in their origin. I would even formulate a maxim, rough and ready though it is: Curable cystitis in the female is tantamount to infection from below—by way of urethra. Obstinate cystitis is nearly always due to infection from above—by way of the ureter."

The writer mentions "three diseases of the upper urinary tract in the female which simulate cystitis, in which vesical irrigation is not only painful, but worse than useless.

"They are as follows:—

(1) *Bacillus coli communis* infection of the kidney (hæmatogenous).

(2) Tuberculosis of the kidney (hæmatogenous).

(3) Ureteritis due to uterine 'sag.'"

Hæmatogenous Infection of the Kidney by the Bacillus Coli Communis.

"*Definition.*—An urinary infection of varying intensity, in the milder grades of which bladder symptoms are the more prominent."

In this connection the writer says:—"We are all aware that micro-organisms pass out of the body through the kidney as through a sieve, and may induce no trouble whatever in their transit. . . . It is also a well authenticated clinical and experimental fact that when two conditions are present, viz., an unhealthy area in the kidney or ureter, and a blood charged with a micro-organism, the inevitable result ensues in the form of irritation and disease in the *locus minoris resistentiae*.

"Lastly, we know that because women are particularly liable to back-pressure upon the renal pelvis, either as a result of a movable kidney or from uterine pressure, they are specially prone to urinary infections of the hæmatogenous type.

"It is evident from clinical knowledge that of the three great groups of infecting septic organisms, the staphylococcus, streptococcus, and *coli* bacillus, the last-named is generally the commonest in the urinary channels; it is also, luckily, the least virulent in its action.

"There is no doubt but that the source of the *coli* is the bowel. What sets it free into the circulation is still a problem—probably some slight damage to, or erosion of, the protective epithelium.

"Perhaps a clue, which I personally cannot follow, lies in the fact that many of the cases occur in the winter months, and appear coincidently in localities affected by epidemic influenza. Waiving the question of the exact path whereby the blood is affected, we find that when the *Bacillus coli communis* spontaneously impairs the integrity of the urinary tract of the female, it often appears as a renal pelvitis—a *coli* inflammation of the mucous membrane of the renal pelvis.

The Clinical History.

"The patient has not been feeling well for a few days—complains of slackness, headache, being easily tired, or nothing very definite perhaps, but she is not quite herself. These prodromata mark the gradual increase of the *Bacilli coli* in the blood.

"She is suddenly seized with a frequent desire to empty her bladder; the act, which is repeated perhaps as often as every five or ten minutes, affords no satisfying relief, and it is accompanied by a scalding pain. A slight chilliness or even a shiver is coincidently noticed, and if the degree of the infection is severe a distinct rigor develops. Fever appears, the temperature rising to 100.5 degrees to 101 degrees F. or higher. Within an hour the urine becomes murky. It is never high-coloured. If the glass or bottle containing it is shaken and held up to the light a curious shot-silk appearance is produced in the eddies of the urine, or a light cigarette-smoke-like aspect. This appearance and the fishy smell which is present is increased when the urine is stale. The urine contains pus, a little albumen, a few red cells, and bacilli of the coliform type (*Bacilli coli communis*). If the vesical strain-