ON CRYPTOGENIC CYSTITIS AND PYELITIS.

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The time is gone when the ever usable and available "catching cold" might serve as an explanation for suppurations and catarrhs of the mucous membranes. We know now that while it may produce a degree of predisposition of the tissues, the real awakening of the affections in question must proceed from precisely definable poisons. These, in the vast majority of cases, are connected with microorganisms or are produced by them.

Thus "vesical catarrh from cold," which formerly was so frequently diagnosed, has disappeared from our field of vision; in like manner, purulent inflammation of the pelvis of the kidney must be attributed to pyogenic presences—bacteria or the products of their metamorphosis—impinging upon the mucous membrane. Their presence is an absolute *sine qua non*, without which any disturbances such as stones, foreign bodies, stasis, etc., can not produce this definite effect.

How do these pyogenic elements enter the urinary passages? As regards the bladder, it is now the habit to think exclusively of infection from without. Bacteria can readily be carried into the bladder from the urethra by instruments, with ease. L. Lewin's and H. Goldschmidt's experiments have demonstrated the process by which they can certainly occasionally ascend to the pelvis of the kidney.

But this simplest of explanations does not always apply. Cases are not at all rare in which cystitis appears, though they have never been catheterized, and with equal frequency pyelitis obtains without ever having been preceded by cystitis. In the latter, post-mortem examination often enough shows an absolutely intact condition of the bladder with severe suppuration of the kidney.

The deduction is inevitable that in such cases the pus producers have immigrated from the circulation. The kidneys serve as drains for the body; any presence of microorganisms causing fluid poisons, must lead to their elimination by the kidneys, and attention has often enough been attracted to the danger to which the kidneys are exposed by the presence of purulent foci in the organism. Pyelitis has frequently appeared after abscesses and furunculoses. But in the majority of instances no heed has been taken of the fact that the healthy body continually harbors immense numbers of pus producers which relatively slight causes can send into the blood and the kidneys. So the intestinal bacteria, preëminently among them the bacterium coli, are entirely innocuous parasites as long as they inhabit their normal domiciles; but as soon as they migrate into other tissues, they act as most energetic pus provokers.

Brunner's declaration regarding strumitis must be designated a most important general law and a very significant one for general pathology. The participation of the urinary passage herein might perhaps have been deduced from the circumstance that of all the bacteria which have been proved to be provokers of cystitis and pyelitis the bacterium coli plays a most important part.

Numerous experiments made by me conjointly with Dr. Arthur Lewin have shown that upon completely

tying off the rectum, eighteen to twenty-four hours suffice to produce an inundation of the entire body with bacterium coli. When we injected the easily discernible bacillus prodigiosus into the rectum of animals and ligated it at once and allowed the same time to elapse, we found this readily recognizable organism in all the organs of the body and especially in the kidneys and urine.

This, which refers to microorganisms, as easily applies to fluids. It has long been known that drugs and poisons of most widely different kinds such as iodine, bromine, carbolic acid, corrosive sublimate, quinine, morphia, etc., are as quickly absorbed by the protoderm as when they are applied subcutaneously. I made a series of experiments with the assistance of Mr. Fanadic, to elicit a closer knowledge of the manner of this absorption, by injections of solutions of coloring matters into the rectum. Aside from other results, precisely the same facts obtained, viz., that twelve to fifteen minutes after an injection into the rectum (for example of indigo-carmin) it could be found in the kidneys and urine.

No one who witnessed these experiments can escape the conviction that they point to a cause for the development of such renal and vesical affections as hitherto have been obscure. As yet, far too little attention has been given to the dependence of these organs upon the intestine. And still, observation of diseases of the urinary apparatus indicates often enough that their origin should be sought for in digestive disturbances.

The future will teach in how far purulent diseases require consideration in this connection. I believe, as has been elsewhere suggested, that chronic forms of nephritis in their narrower sense, will find their explanation herein.

It may suffice, for the present, to invite attention to the conditions under which those many cystitis and pyelitis, formerly designated as "cryptogenic" may originate. Then, accepting that the bacterium coli can provoke such diseases, the conclusion is inevitable that intestinal affections which can cause them to penetrate the circulation, merit special consideration.

SOCIETY PROCEEDINGS.

Cleveland Medical Society.

Quarterly Meeting, June 28, 1895.

THE PRESIDENT, DR. WIRT, in the chair.

Meeting called to order at 8 o'clock P.M. Reading of the minutes of last meeting. Nominations for membership.

The application of Dr. J. H. ROGERS, of Louisville, Ohio, has been approved by the Censors. On motion of Dr. Humiston, the Secretary was instructed to cast the ballot for Dr. Rogers as a member of the society.

PROGRAM OF THE EVENING.

DR. WIRT—At this quarterly meeting we dispense with the report of cases and exhibition of specimens. We now come to the program of the evening. You have all no doubt read in Dr. Wood's text-book on "Therapeutics," his classic description of the experiment upon himself in the use of Indian hemp. In this most perfect description, the Doctor relates that he lost all appreciation of the relations of time, space and surroundings. The Doctor has the happy faculty of hypnotizing his audience, and although the effect is not identical with that of Indian hemp, yet you do lose all appreciation of time, space and surroundings.

It has been my happy privilege to bring about, in a measure, the possibility of this condition for you. I therefore take great pleasure in introducing to you the speaker of the evening, Dr. H. C. Wood, of Philadelphia.