

## CHRONIC CYSTITIS, ITS CAUSES, DIAGNOSIS AND TREATMENT.\*

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MR. PRESIDENT AND GENTLEMEN,—The subject I have chosen for this paper is one which every medical man meets in his practice, and the medical treatment, at least in my experience, is so very unsatisfactory, hence the reason I have selected Chronic Cystitis, hoping the discussion it may induce may be beneficial to us all.

Very little is known as to its pathology, and it may be termed in general "a purulent inflammation of the bladder." At first we have the pathological changes that occur in any inflamed mucous membrane, with which we are all familiar, and as the disease progresses the inflammatory processes penetrate between the epithelial layers and invade the muscular fibres, and as a result the wall of the bladder suppurates. The mucous membrane frequently presents a ribbed appearance, due to swollen muscular fibres, and small sacs are thereby formed in which urine is retained, and as a result there is constant irritation produced by ammoniacal decomposition.

The predisposing causes of cystitis are, according to Dennis, any pathological changes in the genito-urinary system, which tend to induce congestion of the bladder and a weakening of its power to resist the invasion of pyogenic micro-organisms.

There must be microbic infection, and we are told by Melchior that a microbe of itself will not cause cystitis, except where there is some previous change, as a result of which it can find a suitable medium for growth and development. Then any condition producing ammoniacal decomposition of the urine, in which microbes flourish, may be classed among its causes. I do not wish to be understood as saying that you must have ammoniacal urine before you can have cystitis, for such is not the case, for there is what is known as acid cystitis, but in the majority of cases you do have.

Some of the conditions favoring these changes are urethral stricture and enlarged prostate, whereby the urine becomes dammed back and the bladder is never completely emptied after micturition, and is consequently overstrained and the residual urine decomposes and irritates as a result, and also produces a good medium for microbic activity. As a rule cystitis is secondary to some disease of the genito-urinary tract, and frequently results from an extension of an inflammatory process from the urethra, ureter and kidneys. It very often follows an acute attack, and the presence of a foreign body, such as a calculus, or a new formation is very often a cause. Stone in the bladder incites cystitis by lacerating the mucous membrane or by acting in a mechanical way by obstructing the internal urethral outlet.

Some authorities claim that cystitis exists before the calculus reaches the bladder, *i.e.*, in cases of encysted stone, and that the stone is caught and held in the irregular succulated mucous membrane, which has resulted from a pre-existing cystitis. The use of dirty catheters, sounds and traumatism, while some constitutional diseases, such as syphilis and tuberculosis, are causes. Again paraplegia, when it involves the spinal centres controlling the bladder, whereby that organ loses its elasticity and becomes over-distended, and, as a result, retention and incontinence; then certain drugs, as cantharides and

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