

If there is poisoning, those poisons are presumably elaborated in the course of the normal chemical processes in the cells, and as far as I know, there is no evidence to show that there is a defective elimination of the normal toxic products of cellular metabolism, so that the question is to be considered whether what we call toxemia is not the vastly increased physiological action of the thyroid gland and not a true toxemia.

### Original Articles.

#### PROSTATIC TROUBLES FROM THE PRACTITIONER'S VIEWPOINT.\*

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IN preparing this paper I have hunted through my records for cases which will illustrate the common history of the usual prostatic disturbances we are called on to consider, and will detail them briefly, instead of going over the usual textbook descriptions to which we all have access.

A few years ago, J. L., 20, came to the office with complaint of full, burning feeling in the perineum, marked tenderness at defecation, frequent, very urgent desire to void, prostaticorrhea noticed when he strained at stool, and he thought he detected considerable in his urine on standing. He denied gonorrhea, admitted marked masturbation, was one of those fellows who seem to get lots of enjoyment mooning over erotic fancies, and also was doing more or less protracted courting of a moral maiden, at which times he got more than usually passionate, without relief. Between times he was decidedly melancholic and depressed, and this had been helped along very nicely by the attentions of one of the "lost manhood" quacks of a neighboring city, who had started to "cure" him, at so much a course of treatment; the course stopping for a repetition of the fee often enough so that he was somewhat discouraged, and quite sure he was well along towards perdition. Examination showed some prostatic tenderness and fulness, no spermatazooids in his prostaticorrhea, so that he was told that he had a simple hyperemia, urged to omit his self-abuse, his courtship, and to occupy himself with something real in life, and was given a mixture of bromides and saw palmetto. He got along nicely for a while, then his mental de-

pression got the better of him, he floated back to his "lost manhood" adviser, and shortly after hunted up a good deep hole in a country brook and drowned himself.

Not long since I was called to the home of N. C., 28, single, an ardent admirer of free and easy women, and whiskey with a kick, who was complaining bitterly of a severe pain of sudden onset in perineum and rectum, aggravated by fruitless attempts to void; temperature 101, pulse 112, generally used up, but in all having only one urgent demand, to get rid of that water, and so his pain. A hurried palpation of his prostate showed it decidedly enlarged and very hot and tender. Later inquiry developed the fact that he had recently had a gonorrhea and had been consuming considerably more whiskey than he needed. All attempts to catheterize were negative, both without and then with an anesthesia, so I aspirated, getting out a good lot of urine, and then put him to sleep with a hypo of morphine and hyoscine, with hot packs on bladder and perineum. Some hours later, under general anesthesia, a friend and I succeeded in getting a catheter down through the urethra, which was anchored there for a while. With the pushing of diuretics and sedatives, and plenty of heat locally applied, in a few days he was able to take care of himself, first with a great deal of dysuria, then difficulty in retaining his urine before he recovered. In this acute prostatitis I considered that we were extremely fortunate not to get any abscesses forming in the tissues, a fairly common sequel and calling for evacuation through the perineum unless there be spontaneous evacuation through the urethra. Also we were equally fortunate in not poking any false passages along the line of the swollen, tender tissues.

J. M., 47, married, no gonorrheal history, another alcoholic, had a retention with much the same history of rectal and perineal pain as above, and called another physician, who got into the bladder with a catheter, bringing out considerable urine, followed by marked bleeding and a good deal of suffering. As soon as the other medic had left the house, the patient decided with considerable vigorous blasphemy to change doctors, and I was the unlucky victim called right away. I found him in a great deal of pain, and some "fussed up," so he got enough morphine and hyoscine to give him several hours of rest, and as there was still some bleeding when I got there, ice bags to perineum

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and over bladder. Some hours later, after cleaning him up, I got a mild solution of cocaine and adrenalin deep into the urethra with an urethral syringe, and after a little coaxed a catheter down into the bladder without any repetition of the bleeding. Rest in bed, alternating heat and cold, saw palmetto and santal with lots of liquids, fixed him up after a time. He has twice since returned for treatment, as soon as he discovered he was getting the least bit of prostatic tenderness, and each time putting him to bed, giving him the mixture I used at first with plenty of heat to the perineum, has staved off any catheterization. I am in hopes that a fairly strict enforcement of the Volstead Act will prevent his getting what seems to be an exciting cause of his trouble.

Turning now to chronic prostatitis, I am convinced that we find this much more frequently than any other prostatic condition, and that many of the prostatic troubles late in life are acute exacerbations of a chronic prostatitis rather than an hypertrophy, in the sense we usually employ the term. While, like the acute, it is more or less a sequel of gonorrhea, it has a variety of other causes.

B. E., 65, married, no history of gonorrhea or alcohol, at present under observation, for some time back complained of frequent desire to void, worse on lying down, with marked difficulty in retaining his urine if he got into a place where he felt he could not void, as his automobile with a company of ladies or elsewhere under observation. He has more than once said "Damn" during the fall, on finding his front door latched when he got to it, and being unable to get the door open and reach the toilet before he wet his trousers. Early in the winter, due to the exigencies of a large business, he found himself getting overtired and noted that he voided more at night and had more trouble in retaining than usual, that he was getting considerable dull perineal pain, and also pain referred to lumbar region and to rectum, scrotum and urethra, at times so serious as to inhibit sleep, while I was about to have him x-rayed for renal or ureteral calculus. Shortly complete retention supervened. I catheterized him three times in thirty hours without difficulty, then he resumed normal voiding, gradually lost all his pain and discomfort by substantially following the treatment I spoke of in acute prostatitis, *i.e.*, rest, diuretics, sedatives, external heat, etc., and since his recovery

two and a half months ago, has rejoiced in his improvement, now being able to retain or void as he wishes much more than for some time, is also possessed of sexual vigor which had been in abeyance previously, which he is advised to forget. In commenting on this phase of referred pain, Young speaks of several cases he attempted to operate in pre-x-ray days, when he was sure he would find stone in kidney or ureter, but which turned out apparently to be only a reflex from prostatic irritation.

S. W., 22, single, dissolute son of wealthy old people, came to me some time since with the calm assurance that he had had several "doses," all of which had been cured, but that he found himself troubled with seminal losses at stool, and, after he was at all sexually excited he had hard work holding his water till he could get to a toilet, otherwise he was comfortable. He occasionally had a protracted session with an accommodating female, which was followed in a few hours by complete retention, with a great deal of perineal and urethral pain and tenderness, he would be obliged to be catheterized for several times, then would subside, and be normal till he had another experience, when he repeated his retention, etc. He was advised to change his manner of life and devote himself to something besides gratification, which he agreed to do and then forgot. After several repetitions of the above, he moved to another part of the country, and so passed from observation.

Chronic prostatitis either follows an acute attack, or is secondary to a posterior urethritis or a cystitis. The predisposing causes are ungratified excitement, excessive coitus, masturbation, hemorrhoids, habitual constipation, or various irritating conditions of the urine, the exciting cause an infection. Young advises systemic prostatic massage, either manual or by mechanical vibrator, at intervals of from three to ten days, followed by urethral and bladder irrigation with some soothing solution, as a mild boroglyceride, assuring the man of the need for patience, and keeping at it until the congestion has subsided. Of course there is a group of chronic prostatitis with chronic abscesses, etc., requiring surgical care, but these are not in the limits of this paper.

In symptomatology, tuberculosis of the prostate strongly resembles chronic prostatitis, except that a careful palpation shows a more nodular condition, often more tender than prosta-

titis, and the diagnosis hinges on finding T.B. in the secretions expressed from the prostate. If ulceration occur, hematuria and eventually a serious condition of the parts follow, with grave prognosis. Persistent hygienic treatment, with carefully regulated doses of tuberculin seem to offer the best results. Later, if no good comes from these, drainage has helped.

Abnormalities and cysts of the prostate are to be considered when unusual structures are found, but are of sufficient rarity to warrant omission in a paper of this type, as is also true of sarcoma.

T. B., 65, married, a New York dentist, who often visited his people in Holyoke, with a history of various genito-urinary troubles at intervals for some years, so that he was more or less under observation of one of the New York urologists, came to me about two years ago with a history of just having had a pretty bad time in a New York hospital where he had gone for a cystoscopic examination, which he thought had mutilated him, this having been done during the absence of his own physician. He had then a great deal of haematuria, with pain in penis, scrotum, perineum and lumbar region, which he said had grown progressively worse during several months. He was then voiding without help, but had had various periods of retention. Palpation showed the prostate to have a feeling of marked hardness, and it was quite nodular. Always frail, his increasing infirmity soon caused his return home, where his urologist refused operation, simply trying to let him down easily, and in a few months he was dead from carcinoma of the prostate. About six months before this, his sister, older than he, had died of cancer of the breast, and a year later a brother, ten years older, also died of cancer of the prostate, up on a Vermont farm.

Merritt, of Atlanta, reported two cases of prostatic calculi in the *Journal of the American Medical Association* for December 20, 1919, which sum up the textbook descriptions so well that I have inserted them here:

A, 25, white, unmarried, without venereal history, noticed four months before consultation burning sensations while voiding, worse at termination, occasional haematuria. Strenuous exercise gave marked pain in perineal and pelvic region. Nocturnal emissions were frequent, always followed by severe pain and increased voiding. He feared intercourse because of

pain afterwards. Examination showed prostate slightly enlarged and so very tender that it was impossible to express any prostatic fluid. Cystoscopic examination showed a normal anterior urethra, a contracted, tender posterior urethra, an enlarged, inflamed veru montanum. X-ray examination showed a small shadow in the median line of the prostate. Operation removed a small stone, after which patient was free from any symptoms.

B, 44, white, married, with gonorrheal history twenty years before. Ten years before began to have occasional dysuria, with frequent perineal and pelvic pains, gradually increasing in intensity, greatly aggravated by constipation and straining at stool. No hematuria. Intercourse impossible because of pain following. Physical examination showed a similar prostate, and the cystoscope a similar condition of urethra and veru montanum. X-ray showed a small shadow in median prostate line. Operation removed eighteen small calculi, since when patient has been normal. Injuries of the prostate divide themselves naturally into two classes, contusions and wounds. The first arising from kicks or blows upon the perineal region, or in a similar way from horseback or bicycle riding, inducing an acute prostatitis, with the treatment already outlined. Wounds may be the result of war, as from bullets, spear or sword or dagger; from falling astride sharp projecting objects, from false passages made with sharp metal catheter; and surgical wounds. The blood supply to the prostate is sufficiently rich so that there may be a most troublesome hemorrhage resulting, with its consequent worries. Clean wounds usually heal promptly, hence, to insure as much cleanliness as possible, and to control bleeding by packing, should be the plan. Infected wounds, unless freely drained, are apt to give a cellulitis, and may give a peritonitis, hence free drainage is in order. Fortunately the gland seems to be more tolerant than some parts of the body, and often the wounds of false passages heal spontaneously. If not, and abscesses result, they get the same treatment as elsewhere, evacuation and drainage.

Any reference to prostatic troubles naturally turns our thought to hypertrophy of the prostate, the condition most commonly seen by us, which I have brought in here, rather than right after chronic prostatitis, to which it bears many elements of similarity, but which no less an authority than Young advises does not follow

chronic prostatitis as an immediate sequel. The most common lesion is an increase of both lateral lobes, and also of the median lobe or bar, by a thickening of the covering capsule and an increased growth of the glandular substances composing the lobes, thus distorting the urethra. The median lobe has been found as large as an orange, sometimes pedunculated, making a regular ball valve to the urethra; or sessile, making a decided kink in the urethra. More rarely the middle lobe alone, or one or both of the lateral lobes alone enlarge, in either instance disturbing normal voiding by the compression or twisting of the prostatic urethra.

J. D., 58, married, without venereal history, noticed that he was voiding at night with some frequency, a new experience, as he had never had any urinary trouble, but that in the daytime he was normal as always. In due time he found that he was unable to void on arising, but that he must stir about, and that the stream was gradually becoming smaller, and also that he saw that he was obliged to strain considerably, with very little result, though after a time he thought he was emptying the bladder with less than normal control, as incontinence developed. Hot sitz baths helped for a little, but ere long the catheter was employed, and he was soon convinced that the incontinence was only a result of overfilling, and that he always had residual urine except when withdrawn by catheter. Notwithstanding attention to asepsis, the patient doing his own catheterization, a cystitis developed, considerable pus and blood showed in the urine, digestive disturbances made their appearance, vesical calculi were formed and conditions went on from bad to worse. Operation was advised but declined. At length consent was gained, a Bottini was done by a New York man, who also put in a perineal drain, in all his manipulations failing to discover any calculi and positively declaring none present. The patient got no relief in any curative sense, the bladder drain of course keeping down any bladder distention, uremia soon developed, and death ensued. Autopsy showed a rather small prostate, with sufficient middle lobe fulness to inhibit voiding, a handful of vesical calculi, the bladder and left ureter much distended and filled with pus. The history extended over three years.

W. B., 77, previous history negative, was confined to his home one January, some years since, with a severe bronchitis. One of his

neighbors, of convivial habits, having visited a source of supply and gotten properly loaded, drove into B's yard on his way home, pitched out of his sleigh and forward, so that the horse on stepping around, which he didn't do, would have stepped on the driver's head. B. saw all this, and was so excited by his neighbor's peril that he rushed out to where he had fallen, not stopping to remember that he was partially dressed and had been confined to the house for some time, and with great effort, for the booze fighter was a heavy man, pulled him out of danger, roused him sufficiently to get him into the house, and together they got back in. That night B. could not void, try as he would, so I was called and to my surprise no catheter that I had or could get, would go in. The prostate did not feel unusually large, (but of course rectal palpation is useless in determining the size of the middle lobe); it was not specially tender, but it was certainly blocked all right. I aspirated suprapubically, getting 18 ounces. During the next ten days, through which time he was kept in bed as his general condition was made worse by the exposure, external heat applied, sedatives given, and catheterization attempted, his only relief was a daily aspiration. At the end of that time the urethra being sufficiently open to get in a catheter, for a few days the bladder was emptied every eight hours. He then resumed normal voiding, and had no further prostatic trouble.

J. P., 79, single, had the usual history of nocturia, then slowness in starting his urine, with diminished force, then retention and catheter life for ten days or so, recurring about every six months, usually spring and fall, for the last six years of his life, each time suffering greatly from excessive vesical tenesmus, and also marked pains in back, thighs, hips and rectum, with disordered digestion, constipation and marked hemorrhoids. He was financially very well off, but hated to spend a cent, and so because of the extra expense he refused to be catheterized oftener than night and morning, suffering torments several hours each day, which might have been avoided by a six-hour interval. His bladder usually contained about 750 c.c., or a pint and a half, as much as I've ever happened to find in any of my cases, though Young reports a case where he got about 4500 c.c., or about nine pints. Each time, after the ten days interval of suffering, his gland subsided sufficiently for normal void-

ing, and he would become as comfortable as anyone. He had an apoplexy one night about four months after his last prostatic attack, due to an effort to save himself from falling when he tripped, and was dead the following morning.

S. W., 83, married, gave a history of some years of catheter life at intervals, with very little attempt at even ordinary cleanliness, washing his soft rubber catheter as convenient, and carrying it, with a jar of vaseline, in a cloth in his pocket, to have it handy as needed. While he had some cystitis, considering his lack of asepsis, he was very much more comfortable than many for whom all precautions were taken. He finally got to worrying about his condition; fearing lest his passage should close so that he couldn't get the water out, he requested operation and the gland was removed by the suprapubic route. For days it looked as if he might die at almost any moment, but he recovered and lived for five years or so, dying of a broncho-pneumonia.

I might go on with case histories, but what has been given illustrate the essentials of the conditions.

With this gland as with other organs of the body, the best prophylaxis seems to lie in seeking as normal a life as possible. The seduction of the "skirt" seems to promise great things to the young man in his vigor, but in proportion as he yields, good old Dame Nature seems to charge it up, and later in life may give him some pretty serious occasion for thought as, in one way or another, she puts a kink in this unimportant little gland which causes the gentleman afflicted to lose all interest in the rest of his anatomy, until the trouble is allayed. While I have been very much interested in the operative methods and results recorded, they are not a part of this paper, and so will not be detailed.

## THE DIAGNOSIS OF SOME CHRONIC SHOULDER INJURIES.

BY WILLIAM PEARCE COUES, M.D., BOSTON.

It certainly would be denied by few who have an adequate knowledge of the subject that chronic shoulder injuries and their proper interpretation form one of the subjects where perplexities concerning diagnosis and treatment are numerous and at times baffling.

The last usually severe winter, 1919-20, has been responsible for a considerable increase in this class of cases.

Those cases without obviously clearly defined fracture of bone form the very large group which I refer to in this connection.

To make an accurate diagnosis in these cases and to think of what is the best thing to do for them, is a problem with each case. Cases where a sub-deltoid bursitis is diagnosed often are much longer in getting well than a case of frank and definite bone injury about the shoulder, that is, presupposing treatment with a minimum amount of fixation, and early massage and passive motion. Less obvious solutions in the continuity of bone about the shoulder joint are often missed, particularly if no radiographs are taken. Such cases fall into the group of the so-called sprain, or insertion fractures, described by Callender and Stuart. Some slight bony injury is present in many cases of so-called traumatic shoulder bursitis. Of the injuries about the shoulder without gross bony injury, subdeltoid bursitis is one that is surely accountable for more disability, loss of time, and general discomfort, than any other lesion.

I believe, in these cases coming on after trauma that there is always a definite damage near the bursa, tearing of the bipenniform deltoid fibres, and that the bursa is a secondary manifestation. Strains of the supra-spinatus tendon as well as tearing, frequently accompany this lesion. Tears of the tendons of the latissimus dorsi and teres major tendons also occur not uncommonly. Usually in these cases we have a history of the arm being suddenly fixed in forced abduction with some circumduction; it is then that tendons give, and at times muscle bundles also. The after history of these cases reminds one strongly of that of epicondylitis, or tennis elbow. In each case there is usually stripping and tearing of periosteum, from excessive tendon pull. We see the cases usually some weeks or months after the original injury. Though some men have said that treatment at this time, other than operative (in necessary cases), does little, if any good, I am positive that systematic baking, massage, and exercise does do great good in some cases. The question of hysteria after shoulder injury is a very important one, to which comparative little attention has been paid. It is hard for the ex-