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ORIGINAL ARTICLES.

THE MICROSCOPE IS NOT A TOY, BUT A USEFUL MEANS TO GYNECOLOGICAL ENDS.

Read before the Gynecological Society of Boston, March 10, 1892.

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It shows one cause of neurosis and fetid urine in women.

Case 1.—Some years ago, a lady patient complained of the offensive odor of her urine when voided. She said it smelt like "bilge water."

On examination the urine was found to be of good specific gravity, slightly mahogany colored, no deposit on cooling, no albumin, no morphological element at first found. The odor was, as she said, a strong smell of tannic acid as in newly tanned sole leather.

I did not give up, but carefully noting this and other experiments with the microscope I found bacteria in considerable quantity, in the freshly voided urine. They were segregate, globular, and not auto-mobile. I regarded them as the babies of a fungus vegetation, corresponding to the bacilli or babies of the butyric acid fermentation vegetation found in rancid butter which in baby stage of development multiply and by the life chemical actions of their protoplasm develop the rancid smell and taste, just as the gases of putrefaction are developed by the bacteria and mycelial filaments of the putrefactive vegetations.

It occurred to me to lay down the principle for myself, that no bacterial nor mycelial vegetations were normally present in the urine while it is inside the bladder, and that the smell complained of was due to the presence of this very vegetation, whose name I was not acquainted with. Nor did I think it necessary to wait for the name before action to remove, any more than one would stop to ask the name of a burglar caught in his house at midnight stealing, before he was arrested or driven off.

By treatment the vegetation was removed, and the bad smell went with it. Hence I have concluded my reasoning was correct.

Treatment.—This case was treated on the principle that if nature is well sustained she will clear out any such abnormal vegetation. In other words vegetable parasites will not live in a perfectly healthy body, any more than the fungus which causes peach tree blight will grow unless the tree has been weakened by the losing of a certain amount of its normal mineral food, as Prof. Goessmann, of Massachusetts Agricultural College, told me.

Now, as I had known from experience that beef was an article of food which requires the minimum of nerve force to digest, and when digested would sustain human life in normality indefinitely (I have

not the time to give the reasons, nor do I need to, as this is merely an esoteric history), I put her on beef alone, and in a short time the bad smell disappeared and along with it the bacteria aforesaid. No medicine.

Remarks.—This may be called general treatment. It should never be forgotten that after all it is nature that cures. In husbandry it is nature that raises the crop. For the farmer may plow, plant, and cultivate in vain, unless nature does her work. Paul said "I have planted, and Apollos watered, but God gave the increase." Nature will cure almost any disease if she has a fair chance.

Case 2.—A middle aged lady made great complaint of fetid urine as it was voided. (If it becomes fetid on standing it is not so much of a medical matter, though perfectly healthy urine is not apt to become fetid, unless kept in a very warm place.)

Along with this she had great distress of the bladder; hyperæsthesia of the urethra and vagina, with a completely anteverted uterus bound down by adhesions.

This case has had a singular history to which I will refer briefly:

She had been a patient of Drs. H. R. Storer and Warner, in their private hospital in Somerville, and was operated on by them for stricture of the rectum in 1870.

In 1872, she was operated on by Dr. A. S. Woodward¹ of Brandon, Vermont, who removed the entire coccyx,² which had been broken by a severe fall years before. In 1876, she was operated on by Dr. Charles L. Allen³ (now dead), professor of "Theory and Practice," University of Vermont, by dilating the urethra and carrying fingers into the bladder, finding ulceration, which he relieved by injections of nitrate of silver solution. In 1880, she was operated on again by Dr. Allen for stricture which had entirely closed the rectum nearly four inches for a week; all which helped to explain the neurasthenic suffering. I examined her blood for rheumatism (as she had had it before) with the microscope, and found none. The chemical examination of the urine shed no light, but a microscopical inquiry as to the fetor of the urine at once showed a bacterial or microbial vegetation made up not like that of case 1, with globular spores alone, but of several globular spores joined side by side, so as to make rods or bacilli which were very numerous, auto-mobile and active. The microscope, and the microscope alone revealed to me the true situation. Here was a case with anteverted uterus, with the coccyx removed, with the rectum torn open twice and seared with a hot iron, the urethra dilated, and the bladder treated as above, who could live in comparative comfort, but who by the addition of the intra-vesical

¹ Prof. "Diseases of Women and Children," University Burlington, Vermont.

² At that time, said to be the fifth case on record in the world.

³ Of Rutland, Vermont.

cryptogamic vegetation was rendered almost frantic with suffering.

In addition to the suffering and the fetor, she complained of having a "wooden bladder." All natural motion of the organ had ceased except when stimulated by powerful diuretics, and she could not empty the bladder without supra pubic manual pressure. She had called the attention of her physician to these symptoms. He examined the urine with a microscope (so he told her) and said there was nothing the matter with the urine. The odor was due to the condition of the blood, which he did not examine.

Doubtless I should have done no better than her medical attendant, had I not since 1853, been almost constantly studying the urine in disease, and have learned much more than I knew when I first began. Nor should I now write this communication except that the lady in question insisted it "was my duty to suffering humanity" to tell what I knew about such cases.

The treatment in this case was general and local.

General Treatment.—This patient had for sixteen years lived principally on a milk diet, prescribed by Dr. Allen, of which diet she was very fond. I could not bring her down to beef alone, it distressed her and made her sick at the stomach, but I got her down towards it. I told her she could not expect to "cast out Satan," if she continued to let him in through bad food.

Local Treatment was by injecting the bladder with a warm, saturated, watery solution of benzoate of soda once in two days.⁴ The fountain syringe was employed. Such was the extreme hyperæsthesia of the urethra, that it was positive agony to introduce the catheter for injection. The subsequent suffering was also very great.

Still, the effect on the vegetation was prompt and decisive. The auto-mobile protoplasmic motions of the bacteria ceased. After the second injection, their number was greatly diminished. The relief was great. After the third injection, some of the parent mycelial filaments were found. Evidently the "old settlers" were being rooted out. I suppose the vegetations nested in the folds of the contracted bladder, ready to go forth when the field was clear. Indeed, from the chronic nature of the case, I expect it will take some time to kill off the whole brood.

But there is so much relief from what has been done, that I feel assured she will be entirely relieved of these vegetations which, superadded to her old troubles, have made her life one of misery and torment the past few months.

Thanks to the use of an instrument which is regarded as a toy, or as my "hobby," or to be kept at a drug store, and a very poor one at that.

Remarks on the Nature of this Vegetation.—Some time ago, in *Gaillard's Medical Journal*, I published an account of lactic acid vinegar, lactic acid alcohol, and lactic acid mycelial filaments which loaded the urine and sputum of a patient who had lived on milk, and taken lactic acid as a medicine. Since that time, an oxalate of lime calculus was removed from his bladder. It is possible that a stone is in the bladder of the present case. But as she has a history of a milk diet, it is probable her vegetation is lactic acid in the bacterial stage. This is for one who knows more than I do to decide. But the case

is viewed from the standpoint of a gynecist, not a technical botanist. If a foreign body gets into the eye, surgeons do not wait for an accurate description before removal, though it would be desirable.

This case is under treatment which, but for the microscope, would not be understood.

Case 3.—That noble man, Dr. Wheeler, of Chelsea, Mass., called my attention some years ago to a case of catalepsy, a lady 72 years old, which needed more study than the medical gentlemen who had seen her could give—adding some encouraging and stimulating words, that made me put my wits to work at once.

It seems she referred the seat of her trouble to the pelvis, saying that when "she had fits," there seemed to be something streaming up in her abdomen from just above the pubis, that would go all over her, and then she would be in the midst of her catalepsy. Her blood was normal. I supposed the case was due to uterine trouble. On examination, I found a rarity. The uterus, in size and position, was normal. The speculum revealed an almost virgin os; the vagina was normal. There were no tumors found. Abdomen was normal. As it is a rule with me to examine urine of patients under the microscope, I did so here. Another surprise. I found the freshly voided urine filled with:

1. Large, beautiful and graceful skeins of mycelial filaments.
2. Bacteria in large abundance and very actively swarming.

There was no other abnormality that I could find.

In the order of time this case occurred before cases 1 and 2. I spent some time in admiring the beauty of the vegetations, and then it came to me to lay down for myself the principle above stated, that such a vegetation, so fully developed, had no normal place in the bladder, and that, in the absence of other known causes, it was wise to conclude that this profuse abnormal vegetation was the cause of the catalepsy, from the irritation it caused to the central nervous system—analogous to a person wanting to pass water all the time. This, kept up for a long time, as it had been, seemed to be the exciting factor of the neurosis.

Acting on this principle, I injected a teacupful of a warm, saturated, watery solution of benzoate of soda and salicylate of soda, equal parts. I taught her daughter to do this three times a week. I think I saw her once or twice only. But Dr. Wheeler reported to me that she never had another neurotic symptom after the first application, but died of some other complaint a year or two later.

Remarks.—Perhaps some one may ask, Have you found in newly voided urine these vegetations without the neurosis? Answer. I have. Case 1 had no neurosis—but I have no doubt, had it been allowed to run on, it might. If the constitution is strong enough to bear it, no neurosis may occur. People have the gravel of the blood latent in rheumatism without a rheumatic attack, until a cold brings it out; or gravel of the lungs latent and no asthma or hay fever, until some exciting cause brings it on. Or, to use another simile, a gun does not go off, even though loaded, unless fired. How often have guns, said to be *not* loaded, gone off and killed people from the hands of those who are in sport. The load is the predisposing cause of the explosion of the gun, and the pulling of the trigger is the exciting cause.

My old teacher, Prof. Hodge, of pessary fame, used

⁴ It was allowed to remain as long as it could be retained—three hours in one instance.

to tell of a Philadelphia market-woman who did business for years, and slept in her market wagon summer and winter at night, on Market Street. Yet her uterus, all this time, was completely prolapsed down between her knees, and she said she suffered none from it! So it may be that these vesical vegetations are not always the cause of neurotic trouble, but to get rid of fetid urine in the bladder, unless there is stone or some organic disease, or dirty catheter, in my opinion you must get rid of the vegetations which produce it, and can be surely diagnosed only by the use of the microscope, not as a toy, but as an instrument of precision of positive gynecological value, not to be despised nor counted out.

Postlude.—In Case 2 there was a spasmodic condition of the urethra—urethrisms—due to these vegetations, which are sometimes found with stone in the bladder—but there was no evidence of stone in any of these cases. If I can be allowed in this connection the privilege, I would like to hint the desirability of studying the morphology of intravesical urine in all cases of urethrisms, so as to be sure that these vegetations are not overlooked.

Case of Suppressed Menstruation.—January 26, 1892, a large maiden of 25 years, in the midst of menses, took, at midday, a long ride in a dogcart. She was very much chilled and disagreeably shaken up. The menses ceased to flow. At night she was very much oppressed in breathing, and in a good deal of stomachic distress. About midnight she vomited blood largely. As she went to the bath-room the floor was stained with blood. In the bath-room she fainted and fell to the floor. My son, Dr. John A. Cutter, found her in surroundings that looked as if murder had been committed. Though her history was clear, still it was desirable to know that the hæmorrhage was not of a tuberculous complication. Having no microscope with him, he sent for me and a clinical microscope, and I found that while the morphology of the blood was not normal, it was not tuberculous. This made the diagnosis clear. Though the patient was very ill and about moribund, she is now recovered completely.

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GYNIC DISEASES HAVE NOTHING TO DO WITH INSANITY(?)

At a late meeting of the New York State Medical Society, a reader took the above ground strongly. He based it mainly on the statistics of insanity, foreign and domestic, which showed that as many women were insane as men, who had no uteri to get out of order; that if gynec diseases operated to produce insanity, the proportion ought to be larger of alien women to alien men; that hence, it was useless for alienists to become gynecologists as there was no call for their work.

Now, in reply to this, I would like to see some joint expression of our Society based on facts to show its fallacy or not. Some points to be raised are as follows:

1. These statistics were made by those who confessedly knew not about gynecology.
2. Except from outside pressure alienists will not make gynecological examinations nor studies.
3. To insist that there are no gynecological lesions in insane women, because they have not been looked for and thus not found, is to beg the question and amounts to no reason whatever for the position.
4. The writer and others claim that gynecological

affections, by the withdrawal of nerve force, virtue or dynamos, do weaken the mind so that some women become insane from this cause as experience has shown.

5. Insane women who have had gynecological diseases cured, have become sane.

6. A physician told a patient of mine that he had studied six months in an insane asylum, where, out of 400 women he found 300 with female diseases, and that in his opinion they would not have been insane if their local troubles had been properly treated at the outset at home.

7. In my opinion lesions of the sexual organs are causes of insanity in men. I have found neurasthenia in men to come from a urinary catarrh of the spermatic ducts. This catarrh is in three forms, I think: 1. Proto-plasmic, like the white of egg. 2. Skeins and filaments more or less marked. 3. Indian club shaped. (For its detection use one inch objectives.) Out of 100 cases at Flushing, L. I., Male Insane Asylum, I found at least eighty who had in their urine one, two or three alone, or combined in sufficient quantity (provided they were fair samples) to produce neurasthenia, which is thus shown to be one cause of insanity. If this is so, may not this catarrh explain why there are as many men as women insane? And from parallel sexual causes, too.

8. An insane woman who had been to an Alienist Asylum for treatment was not even examined gynecologically. She paid her bills. After a considerable time she was discharged as uncured. She was found to have anteversion complete and a hyperæsthetic uterus with $3\frac{1}{2}$ inches depth of cavity. She was treated with iodoform vectors till the hyperæsthesia was removed, and the uterus reduced to normal size. She then wore my stem pessary for a few months and is now entirely cured. She was so grateful to her physician, Dr. Wheeler, of Chelsea, that she wrote and desired to publish a letter of gratitude to him for her complete restoration to health and reason. I saw this case in consultation with Dr. Wheeler, who carried out my plan, and can give if he will, the full particulars.

9. I think the reader, above referred to, should be answered also as he threw ridicule on gynecologists by saying that there was only one time when a man should pass through or be acquainted with the vagina, *to-wit, at birth!* Unless better reasons than these are given, I for one, shall consider the alienists as derelict in their duties to the unfortunate women under their charge.

I know of no other body in the world better entitled to take up the gauntlet thus thrown down than this Society, which was the first in the world to take up especially the study of women's diseases—insanity included.

1730 Broadway, New York, Feb. 8, 1892.

GRADUATES IN MEDICINE, 1892.—Southern Medical College, 34; St. Louis Medical College, 18; St. Louis College of Physicians and Surgeons, 83; Missouri Medical College, 14; Medical Department, University of Tennessee, 101; Medical Department, University of New York, 150; Meharry Medical College, 25; Medical Department, University of Nashville, 150.

DERASSE reports a pregnancy which he recently attended at full term, the woman being in her sixtieth year. Dr. A. O. Barnes, of St. Joseph, ten years ago reported a case in the *Medical Standard* of a woman aged sixty-five who went to full term and was successfully delivered.