

in contact. As the shortest and best method of treatment, I incised the cervix. After the subsequent menstruation, semen was found to enter the canal of the cervix. After the next period, they were found there in abundance, and all living. In three months thereafter, she conceived. In another three months, she miscarried, in consequence of a fall. Six months after this, she conceived again; and a year ago she became a mother.

So far I have related only cases of natural sterility, and, were it necessary, I could give you scores more of the like character, but, as you perceive, there is so much sameness among them, that it would be superfluous. However, bear with me a moment longer, while I give you one or two illustrations of the value of the microscope in acquired sterility.

No. 8, aged 36, had given birth to one child ten years ago. Her general health was perfect, but she did not conceive again. She was anxious for more offspring—had been to various watering-places and had consulted several distinguished physicians. At last she fell into the hands of my friend Dr. Lheritier, who brought her to me. I found the uterus hypertrophied and somewhat retroverted. The os was rather small and the cervix indurated, and I had some doubt whether the semen could enter the cervical canal. But a microscope examination proved that it did, and that the cervical secretions killed all the spermatozoa. This case was under treatment in January and February, and again in May and June. When she left in June, living spermatozoa were found in the cervical mucus, in great abundance, thirty six hours after coition. We, therefore, pronounced the case cured. She conceived a month afterward, and was safely delivered at term.

No. 9.—We often fail to cure curable cases because the treatment is sometimes so tedious that both patient and doctor get mutually tired, and both are glad to quit. Madame —, aged 34, had one child eight years ago; subsequently had chronic cervical inflammation; was cauterized too much. The cervix became indurated, and the os contracted. She wanted more offspring. I was in doubt about cutting open the cervix. A microscopic examination proved that the semen could not enter the cervix. Accordingly I incised the os. After this the semen entered the canal of the cervix, but its mucus killed all the spermatozoa. The mucus was not as clear and limpid as it should be, and it had white milky specks in it, looking as if it had been mixed with a little of the vaginal secretion. The lining membrane of the cervix was too red and rather granular. This was cauterized even up to the cavity of the uterus; and various other local as well as general remedies were adopted and carried out from time to time for twelve months. The character of the cervical secretion gradually improved, and at times showed some living spermatozoa, and again all were dead. This patient did not despair, notwithstanding a fruitless treatment for so long a time.

A sponge-tent had revealed long ago a small flattened cystic tumor in the canal of the cervix, situated on its posterior face, just at the os internum. I had repeatedly suggested the propriety of extirpating it. After all other means had been exhausted for restoring the cervical secretion to a normal state, the operation was agreed to. In June, 1867, nearly two years after we began the treatment, a

sponge-tent was introduced; the canal of the cervix was fully dilated, and a cystic tumor, about the size of the end of the little finger, was extirpated. Three months afterward, the cervical mucus was greatly improved; and in March last, after a treatment of more than two years and a half, I examined the secretions fifteen hours after sexual intercourse, and I had the satisfaction of saying, "At last, madame, I find the cervical mucus perfect; it is full of spermatozoa, and all very active. We can now hope for conception." Conception dated from that period, for she did not menstruate afterward. But for the microscope, I would have dismissed the case as cured after the incision of the cervix uteri, and she would have remained, in all probability, sterile to the end.

Once I thought that the most common obstacle to conception was a contracted cervical canal, contracted at its outlet, at the os internum, or throughout its entire length. But, if I were now asked, "What is the most frequent obstacle to conception?" I should unhesitatingly say, "An abnormal utero-cervical secretion that poisons or kills the spermatozoa." I can call to mind numbers of cases where, in former years, I incised the cervix, when the operation was satisfactorily done, and yet the sterility persisted. In some of these I have now not the least doubt that the husbands were sterile, and in others I have as little doubt that the cervical mucus was poisonous to the spermatozoa. If I had then possessed the exact knowledge of to-day, how much more satisfactory would it have been for me—how much better for my poor patients!

I could go on for hours with cases to illustrate the principles already laid down. The foregoing are taken at random, and are sufficient for the purpose. I have not treated a single case of sterility as such in the last six years, without determining the three questions so essential to success that were stated at the outset of this paper, except the half-dozen cases already alluded to, and in these the microscope at last revealed the truth.

Before closing this paper, pray allow me to say a word personal to myself, which is, at the same time, in vindication of the honor and progress of medicine. When my book on "Uterine Surgery" appeared in February, 1866, it was noticed, generally favorably by the medical press, and always honorably, with but one exception abroad, and two or three at home. The *Medical Times and Gazette*, one of the most excellent and influential journals of the day, conducted with great ability, and usually with liberality and decorum, condemned in the strongest terms, my investigation of the seminal fluid, and said that "this dabbling in the vagina with speculum and syringe" was incompatible with decency and self-respect. Now, for myself, I see no indelicacy or impropriety in taking mucus from the vagina and uterus for microscopic examination. It is no more indelicate, no more impure, than to investigate the character and properties of saliva, or bile, or urine, or feces, or pus. And where is the scientific physician, nowadays, who could or would dare to give an opinion on any obscure and complicated disease without some such investigation? To answer that question, I have only to call to the witness-stand such men as Beale, Hughes Bennett, Gull, George Harley, Sir William Jenner, Bence Jones, George Johnson, Stokes, and the immortal names of Addison and