Short case report

Transmission of gonorrhoea by artificial insemination

N. J. FIUMARA*
Boston, Mass., U.S.A.

Gonorrhoea is now pandemic throughout the world with about 150 million cases occurring annually. In the United States alone, the annual incidence of gonorrhoea has been estimated by the Public Health Service at 2½ million, and this sharp increase has resulted in many physicians becoming reacquainted with this interesting and complex disease from both the clinical and the epidemiological viewpoints.

The following case history illustrates an unusual mechanism of infection. I believe it to be the first case of gonorrhoea transmitted by artificial insemination to have been reported in the medical literature.

A married couple were referred to me by their family physician for examination for possible gonorrhoea. John, aged 31, and Jane, aged 29, arrived early for their appointment on a Thursday afternoon and sat huddled together holding hands. They were obviously frightened and agitated. It was not the usual reaction of the innocent spouse and the wayward partner.

The husband, in a strained voice, asked if I would see them together. Over the telephone, the referring physician had told me that John had had a urethral discharge of less than 24 hours' duration and that the smear was positive, but that neither husband nor wife would accept the diagnosis of gonorrhoea.

History

As the couple sat down Jane began, 'My doctor says that John has gonorrhoea, and I don't believe it. We have been married for nine years and John has never gone out with another woman. Why, we are always together, we never go out alone.' John nodded agreement and volunteered 'You can't get it from toilet seats; you have to have sex. That's what you said over the radio, and I have sex only

with my wife, and she has sex only with me, so how could I have gonorrhoea!' His logic was unassailable so I continued with the history-taking.

On Tuesday afternoon, after completing his work at the bank, he met his wife at the Court House where she was employed as a legal secretary. He had noticed that afternoon that he urinated more frequently and that the urine smarted. He couldn't wait to get home fast enough to go to the bathroom. To his horror, he noticed pus coming out of the urethra and shouted to his wife to come and look too. She confirmed his observation and was equally at a loss to explain it. She called her family physician who had taken care of her since childhood and of her husband since their marriage, and an appointment was made for the next morning. That evening the couple discussed the possible cause of the urethral discharge. They eliminated spicy food because neither liked it; alcohol was also excluded because their last cocktail had been three days ago on the Saturday night. They concluded that perhaps they overdid themselves sexually on Saturday and Sunday and that John had 'a strain'. On Thursday morning, in the physician's office, the diagnosis of gonorrhoea exploded like a bomb-shell.

Examination and laboratory tests

The patient had a purulent urethral discharge and the smear was positive for Gram-negative intracellular diplococci. Culture on Thayer-Martin medium of oxidase-positive colonies was positive 48 hrs later.

While the husband's smear was being stained and read, I examined the wife. There was no evidence of urethritis, but the cervix was red and a small amount of pus was present at the os. The urethral smear was negative but the cervical smear was positive as was the culture 2 days later.

Epidemiology

Tearfully, the wife then explained that they had been married for 9 years and had been trying to have a baby for the past year. They had marital relations only at weekends so that her husband could accumulate a sufficient amount of sperm to impregnate her, and she was careful not to excite him sexually during the week lest he have a nocturnal emission and diminish the sperm count. I

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*Director, Division of Communicable Diseases, Massachusetts Department of Public Health; Clinical professor of dermatology and preventive medicine, Boston University School of Medicine, Lecturer in dermatology and syphilology, Tufts University School of Medicine, Instructor in dermatology, Harvard Medical School; Clinical associate in dermatology, Massachusetts General Hospital; Visiting physician, University Hospital; Associate physician for dermatology, Boston City Hospital; Physician, Department of Dermatology and Syphilology, Boston Dispensary.

assured her that it would not have this effect and she felt relieved. When I asked if they had undergone sterility studies, they both said 'yes', and that the wife was having artificial insemination by an obstetrician recommended by her family physician. She had had four such inseminations, the last one only a week ago on the previous Thursday.

I assured them that they would both be cured and that the disease would not prevent them from having a baby because it was being treated in its very early phase.

No sooner had they gone than I telephoned the obstetrician and explained the situation to him; to put it mildly he was somewhat disturbed. He said that he had used the same donor for the four inseminations. He had examined him carefully on the first three occasions including a blood test for syphilis, but the fourth time, he had felt it would be a waste of time to examine him yet again, and the specimen had been used immediately after ejaculation.

The obstetrician arranged to contact the donor immediately, and reported back an hour later that this man had been treated for gonorrhoea on the Saturday, 2 days after the last donation. The obstetrician verified this with

the donor's physician, who said a smear was positive for Gram-negative intracellular diplococci and that the patient had had a slight discharge and dysuria for 2 days before consulting him.

Summary

A case is reported of gonorrhoea transmitted by artificial insemination. To prevent this undesirable effect the donor must be examined at each collection of semen.

Un cas de gonococcie transmise lors d'une insémination artificielle

SOMMAIRE

On rapporte un cas de gonococcie transmise lors d'une insémination artificielle. Pour éviter cet indésirable résultat, le donneur doit être examiné à chaque récolte de sperme.