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GONORRHŒA IN WOMEN

A SIMPLIFIED CONTINUOUS LOCAL APPLICATION

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THE cost of prolonged treatment for gonorrhœa in the female is one of the many important factors which prevent the eradication of gonococci. Along with other treatments, antiseptics or germicides are applied by many clinicians in the form of medicated tampons or bougies of various sorts. Most forms of tampons must be applied by the physician, so that if they are to be used daily, the cost is excessive. Medicated bougies which can be applied by the patient cost from ten to fifty cents each, and probably will not contain the germicide one desires.

For some years I have been experimenting with various mixtures of acriflavine, methylene blue, gentian violet, and mercurochrome 220, singly and in combinations, mixed with cocoa butter. These suppositories must be handled with care, as they melt at body temperature. Glycerogelatine suppositories also are frail. So I tried 1-ounce veterinary gelatine capsules containing absorbent cotton in which was the germicide. The patient merely had to fill the capsule with tap water and insert it at bed time. These were cheap and fairly satisfactory, but much of the germicide was wasted. A certain proportion of lamb's wool would prevent the cotton from dropping out until before the next night, but too much would prevent the introduction of sufficient water into the capsule.

Finally, I decided to use the dry medicament in an easily soluble form in 1-ounce capsules without enclosing any cotton or wool. Lamb's wool is inserted into the vagina after the water-filled capsule to prevent the loss of the germicide.

The following printed instructions are given to the patient with the first week's supply of capsules:—

“ You should return each week for a treatment, unless directed otherwise.

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" Give yourself a chlorinated douche each night at bedtime and insert a capsule just before going to bed.

" The douche is best given warm and is made by adding two teaspoonfuls of some concentrated hypochlorite (Dakin's) solution to a quart of warm water. A chlorine solution for douching may be purchased at almost any drug store.

" The capsule of gelatine contains a germicide which stains the clothing ; therefore, a pad is worn all the time you are being treated. The top of the capsule is removed and the lower part of the capsule is filled full of tap water (not hot). The top is replaced, the capsule is shaken to dissolve the germicide, it is wet on the outside to make it slippery, and then is inserted as high up as it can be placed. A piece of lamb's wool (as sold in packages in drug stores) about the size of the capsule is inserted after the capsule, to hold in the germicidal solution, which is liberated in a few minutes when the gelatine dissolves. The lamb's wool should be compressed with the fingers, and can be inserted easily by wetting it or by placing on the top of it a little lubricating jelly or oil or vaseline. Enough wool should be used so that it will stay in at least until the next night. These applications are not discontinued during the menstrual period."

These capsules have been supplied to various clinics in New Jersey during the past year at a very low cost to the State. Patients find no difficulty in their use, other than the staining due to the large quantity of germicide which can be used without irritation. Many patients have used a 0.1 gram tablet of neutral acriflavine in each capsule daily for weeks without noticeable irritation. Mercurochrome 220, well powdered, in dosage of 0.5 grams in each capsule, was used extensively, but it dissolves less easily and is more expensive than a proportional amount of neutral acriflavine. A 0.03 gram tablet of neutral acriflavine retails at approximately two cents and a 1 oz. veterinary gelatine capsule costs three cents, so that a month's supply of medicated capsules for daily use retails at less than \$1.50. This amount of acriflavine is probably sufficient, but those who believe that if a little is good, a larger quantity is better, may obtain 0.1 gram neutral acriflavine tablets for five cents each (\$5.00 per 100). Acriviolet, which is merely a mixture of equal parts of acriflavine and gentian violet, was used in the

BRITISH JOURNAL OF VENEREAL DISEASES

same strengths as acriflavine, but most patients objected to its very deep purple staining properties.

It must be understood that this simplified continuous local application by means of these gelatine capsules is only a part of my routine in the treatment of gonorrhœa in the female. My routine includes a weekly injection of a stock vaccine, a weekly treatment to the cervix for the first six weeks at least, and other local treatments to the urethra, Bartholin's glands, or other badly infected foci. I generally prefer to apply a saturated solution of silver nitrate to the cervix on an applicator tightly wound with absorbent cotton to a diameter of 4 to 6 mm. The applicator is dipped into the caustive silver nitrate solution and then about 5 mm. of the tip is covered with acriflavine by dipping the moist applicator into the powdered acriflavine. Then the loaded applicator is rapidly inserted into the cervix, where it is allowed to remain usually for two or three minutes, but removed sooner if it causes much pain. If the Bartholin's glands give trouble, they are incised and cauterised or most of the gland removed, and the urethra and other foci are treated according to the indications.

My idea of the therapeutic value of these continuous applications of germicides in large gelatine capsules to the female genital tract is that the continuous germicidal or antiseptic bath breaks the channels of infectious communication between the various foci of infection. Thus various local treatments, the patient's resistance, and the passage of time will account for the dying out of the infection in each particular isolated area.