LOCAL USE OF GUAIACOL IN THE TREATMENT OF FREQUENT, PAINFUL URINATION.

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I wish to present guaiacol as a remedy for the treatment of painful urination, which, so far as I am aware, has not been mentioned in the therapeutics of this annoying disorder.

Frequent urination is a symptom of various affections, but guaiacol is applicable only to those cases in which the cause of the symptom is located in the extreme inner portion of the urethra, usually in a space $\frac{3}{4}$ to $1\frac{1}{4}$ inches external to the urethrovesical orifice. Many diseases of the genitourinary system cause urgent micturition, yet it is probable that all other causes combined furnish fewer cases of frequent painful urination than the one condition under consideration.

Disease of the deep urethra is, I believe, usually mistaken by the majority of general practitioners for cystitis or "irritable bladder." I am quite sure that nearly all the cases which years ago I called cystitis and irritable bladder were not such. I suspect that most of the cases treated with buchu, *rhuis aromatica*, *uva ursi*, *belladonna*, etc., and called cystitis, should be called disease of the deep urethra and treated locally.

The morbid condition is usually confined to the mucous membrane and submucous tissues. In almost all cases there is a heightened color of the mucous membrane, varying between a rose or pink and slight purple, some cases presenting a granular surface. The diseased part will often bleed on touch. There may be, and usually is, some uneasiness about the base of the bladder, and when the desire to urinate is decidedly present, the discomfort is marked, nagging and exceedingly uncomfortable.

It is only necessary to place the positive physical signs and symptoms of cystitis, diseases of the prostate and kidneys, gonorrhea, contracted and adherent prepuce, stricture of the urethra, etc., in contrast with the physical signs of inflammation of the deep urethra, to put the physician on his guard against confusing these diseases. I have called attention thus briefly to some of the symptoms and signs of deep urethritis to emphasize the fact that it is often mistaken for other diseases.

The diagnosis having been settled, an ordinary urethral speculum of a caliber as large as can be borne with comfort should be passed through the deep urethra. With absorbent cotton on a cotton-carrier the mucus at the bottom of the speculum should be taken up, and if any blood has filled the lumen it should be mopped away until the mucous membrane is dry. Another carrier, having a small ovoid of cotton on its point, nearly saturated with guaiacol may be used to make applications to the congested membrane.

Guaiacol in a fluid condition should not be permitted to cover the mucous membrane; barely enough to make a surface application is all that is desirable; thus applied, it is an anesthetic and mild stimulant. It gives rise to much less pain than the usual local applications. No strangury results, as is usually the case when silver nitrate is used. The patient will often retain the urine for hours after the application. Its use is often followed by a lessening of the perineal and suprapubic discomfort after a few hours, and a few applications, from five to ten days apart, in my experience, have been more satisfactory to patient and physician than any remedy previously used. It has cured 20 per cent. of my patients.

About 70 per cent. of the cases are improved markedly. Some cases that would seem to fall fairly within our field are not improved. If applied every day or two it will produce local tumefaction, causing a diminished size of the urinary stream; this tumefaction passes away in a few days.

The application will not cure frequent and painful urination due to an enlarged prostate, but in so far as a congested prostatic urethra accompanying prostatitis is a factor in enuresis, the application of this agent is indicated. There are other diseases that cause enuresis which will not be improved by this treatment.

The following cases illustrate its effects. No description of the morbid condition in these cases will be given, as all come within the bounds previously described:

CASE 1.—A. W., male, aged 40, had gonorrhea fifteen years ago and has since then had an "irritable bladder," has suffered many things from many physicians. When he consulted me the chief cause of complaint was the perineal discomfort and the annoyance of being compelled to void urine on very short notice. He was compelled to pass urine two or three times each night, and frequently during the day. Four applications, a week apart, made him nearly well. He comes to me once in about six or ten months for two or three local treatments, and is kept much more comfortable by them.

CASE 2.—M. E., a girl 10 years old; has been obliged to pass urine very often since babyhood. In the past three years she has got up on an average of six times a night, and passes urine ten or twelve times a day. One local application reduced the nocturnal number to four times a night; the second application reduced it to twice; the third and fourth gave improvement, a whole night being passed sometimes without disturbance of sleep. Although the patient was not fully cured, she has failed to continue treatment.

CASE 3.—Mrs. J. T., a widow, aged 72, since 1898 has averaged getting up to pass urine five times a night. Three local applications have reduced the number to about two. This improvement has continued for four months without other attentions.

CASE 4.—Mrs. F. J., married, aged 50, has passed urine four to five times a night for many years, and frequently during the day. Medicines by mouth were preferred by patient until it was evident to her that she obtained no benefit therefrom. Local treatment with guaiacol five times in five weeks restored the micturitions to normal number; patient has been in normal condition for a year.

CASE 5.—D. J., male, aged 28, had gonorrhea one year previous to treatment; was confined to his bed one week with orchitis. During the year before treatment, after all gonorrheal discharge has ceased, he had a constant weight in the perineum, and above the bladder, with very frequent urinations; nocturnal enuresis occurred about three times a night. One thorough application was made; that night he urinated once only, and, in the six months since then, has been perfectly normal. The perineal and suprapubic pain has entirely ceased.

CASE 6.—Mrs. P. J., aged 28, has had an "irritable bladder" since childhood. For twenty years at least she has passed urine ten or fifteen times a day, and three to five times a night. An examination showed the typical condition described above. A topical application was made at once; that night she passed urine only once for the first time in her recollection. She has never been obliged to get up in the night since that date, and urinates only four or five times a day. As the urethra was a little abnormal I made a second application, ten days after the first.

Medical Editor in Lay Journal.—A special supplement to the German magazine the *Kleiner Journal* is to be published by a medical editor, with the title the *Kleiner Journal f. Hygiene*. The purpose is not merely to disseminate knowledge in regard to hygiene, but to educate the public in regard to quacks.