

Cathell (D.W.)

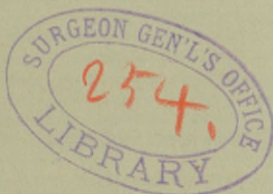
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RECTAL MEDICATION.

-BY-

D. W. CATHELL, M. D.

[Reprinted from THE TRANSACTIONS OF THE
MEDICAL AND CHIRURGICAL FACULTY
OF MARYLAND, 1885.]





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RECTAL MEDICATION.

By D. W. CATHELL, M.D., Baltimore, Md.

The proximity of the rectum to the seat of so many important diseases, and the fact that it is a closed cavity with decided absorbing power, make it rational to suppose that if, as Liebig states, "A solution of salt, in the proportion of one part to eighty of water injected into the rectum, will disappear completely in the course of an hour—so completely that an evacuation at the end of that time will be found to contain no more than the usual quantity," and if, "The fluid extract of rhubarb may be detected in the urine about an hour after being injected into the rectum," it is logical to infer that the insertion into that cavity, of remedies for the cure of its own diseases and those of neighboring parts may be pursued with success, and I am quite sure that all who have seen the excellent effects that follow the injection of twenty or twenty-five grains of chloral, in an ounce of water, into the rectum of a patient suffering with obstinate nausea or vomiting, as in pregnancy, or in various affections requiring a few hours of good sleep can never wholly doubt the efficacy of rectal medication.

The directness in action of certain remedies administered by the rectum, compared with the same when administered by the mouth and compelled to run the gauntlet of the whole alimentary canal and risk decomposition or change, with all the incompatibles they may meet, is obvious, and accounts for the occasional success of remedies administered by the bowels after failing by the stomach.

Medication by rectal suppository, is simple, direct and cleanly, and if the case and the remedy are logically suited, is also very efficacious, besides leaving the stomach free for food or whatever else is indicated.

I shall not enter into a consideration of the entire subject of rectal medication at this time, or consider the action of quinia, ergot, assa-fetida, tannic acid, santonine, elaterium, podophyllin, aloes, or other articles suitable for use in this manner.

Nor shall I attempt to offer anything novel, but shall ask your earnest attention to this convenient and effective method of availing ourselves of *Morphia and Belladonna*, two of the most valuable articles of the pharmacopeia.

I would first ask attention to the use of sulphate of morphia in rectal suppository, in a large class of ailments of the pelvic organs and the higher abdominal viscera, that are characterized by increased sensibility and irritability, especially when connected with decreased action of the skin, and increased action of the mucous membranes of these parts. Over many of these cases it has wonderful influence, and has the important advantage that it never causes an intolerable dryness of the throat, as seen in many who are using belladonna.

I would also ask attention to the use of Extract of Belladonna in rectal suppository for quite a number of ailments of the pelvic organs and abdominal viscera that are characterized by abnormal sensibility and irritability, especially when connected with increased action of the skin, in many of which cases it has the important advantage over morphia, that it has but little, if any, tendency to constipate; indeed the continued use of belladonna, in this way, has a strong tendency to overcome and cure existing constipation.

Lastly, I would ask particular attention to a combination of the two, morphia and belladonna, in rectal suppository in numerous painful affection of the rectum, the urinary organs, the genital apparatus, the higher abdominal viscera, and even of the sacral and sciatic nerves. Although these two agents are well known physiological antagonists, they, when used together, *in suppository*, either establish a new property or antagonize each other's bad effects, rather than their good ones, for not only can the desirable therapeutical effects of each be unmistakably perceived when used together by the rectum, but that their ill effects are softened and sensibly diminished by combining them, seems equally clear; for example, in cases characterized by great pain and colliquative sweating, the pain is relieved with a degree of promptness that proves the action of the morphia, while the sweating is benefited to a degree that shows that the belladonna has also been active, each appearing to allow the good effects of the other while lessening its own bad ones.

I believe the combination of these two drugs in rectal suppository to be especially useful, and shall briefly mention a few of the cases on which this belief is founded :

To avoid prolixity, I here state that I have, in all cases, resorted to whatever other treatment seemed to be demanded, in conjunction with the suppositories.

Ulceration of the Prostate Gland.—J. W. B——, a gentleman of fine physique, aged 36, came under my care in August, 1877, suffering with hæmaturia, vesical tenesmus, dysuria, mucus, pus and other indications of a lesion of the bladder with which he had been suffering about two years.

Inability to pass a sound through the prostatic portion of the urethra, exquisite sensitiveness of the prostate on rectal touch, etc., pointed to that rare and serious disease, ulceration of the prostate.

This opinion was shared by several other members of the profession, among them the late Dr. Samuel D. Gross, who confirmed the diagnosis and emphasized the gravity.

Other forms of treatment had failed and the patient had been brought by colliquative sweats, vesical tenesmus, frequent micturition, nausea, loss of sleep, etc., to a point at which his recovery was believed to be impossible, and his death was hourly expected. The stomach being no longer able to tolerate the anodynes his sufferings demanded, the following suppository was devised :

℞ Morphiæ Sulph. gr $\frac{1}{4}$;
 Belladonnæ Ext. gr. $\frac{1}{4}$;
 Glycerine jelly suf. to make a fifteen grain
 rectal suppository.

One of this strength to be inserted into the rectum every six hours. Their good effect on the sweat, the tenesmus, and the frequent micturition was at once perceptible ; composure of the mind and sleep followed, and it was soon possible to inject carbolized water into the urethra and bladder.

Under the constant use of this treatment, improvement continued, and after a few months he was convalescent. He is to-day a stout, healthy man, with simply a slight irritability of the bladder and frequent urination, whenever he over-exercises or contracts cold. The undoubted value of that combination in this case, impressed me strongly, and I have since resorted to it, whenever suitable cases present themselves.

An Italian ship captain, aged 59, came under my care in August, 1884. He had been suffering for about ten days with vesical tenesmus and increasing irritability of the bladder, the result of cold, exposure and prolonged anxiety, consequent on a stormy voyage. He was now suffering with a sense of great fulness in the perineum, smarting and distress about the neck of the bladder, a scalding sensation in the urethra and a perpetual desire to pass water, which had robbed him of sleep and taken away both appetite and strength.

Anodynes, diluents, fomentations, etc., were used for three days with indifferent results; I then ordered a dozen rectal suppositories, each containing half a grain of morphia, and three-quarters of a grain of belladonna, one to be inserted every six hours. Improvement was immediately noticeable, and in four days thereafter, although not completely recovered he was able to rejoin his vessel and assume command.

Senile Hypertrophy of the Prostate, frequent and painful Micturition, etc.—A. B——, a pattern-maker, aged 67, consulted me in March, 1881. He had suffered for three or four years with uneasiness about the neck of the bladder, with frequent and urgent desire to urinate, which had increased, till now the intervals were generally not more than half an hour, and never over an hour. Urination was accompanied with difficulty, tenesmus, and unusual muscular effort. He also suffered with neuralgic tests, insomnia, etc. Anal exploration by the finger revealed a prostate enlarged to the size of a guinea egg, with a probability that the muscular coat of the bladder was also very much hypertrophied.

In conjunction with some minor remedies, diluents, etc., a rectal suppository, similar to the one given in my first case, was ordered to be inserted at 9 o'clock in the morning, at 3 in the afternoon, and at 9 o'clock at night, daily.

Under their influence the pain and tenesmus were speedily relieved, the intervals between the acts of urination were increased to two or three hours, and after a few days he was able to sleep five hours without arising.

He remained under my observation for about *six weeks*, during all of which period he was kept comfortable, that too, after the first week by a suppository morning and night only. I then lost sight of him until I heard of his death, about two years after he begun this treatment.

On *making inquiry of his relatives*, I ascertained that he died of

an entirely different affection, pneumonia, and that he palliated his prostatic affection with the *B. & M. suppositories* up to the time of his death.

Encysted Renal Calculus.—Mrs. D——, a stout healthy woman aged 37, mother of six children, who had at various times passed five or six calculi from the right kidney, with the usual paroxysms of pain, etc., finally, in April, 1880, had one to impact itself in the ureter about four inches above the bladder where it still remains, causing tenderness and pain, and occasionally spasm of the ureter, as great as ordinarily witnessed in the passage of a calculus. For her sufferings at these times she has found no remedy comparable in efficacy to a suppository of morphia and belladonna.

Irritable Bladder.—Mr. M——, a middle-aged merchant had had for a year or more accustomed himself to micturate unnecessarily often when at his office, doing so whenever he went to the water spigot for water, or to even wash his hands, which was at least a dozen times a day. *This* habit kept his bladder empty and deprived it of its natural stimulus, till it gradually diminished in size, became thickened, over-sensitive and intolerant of the slightest distention, compelling him to rise two or three times every night to void urine, which was accompanied at times with considerable vesical tenderness. The cause was explained to him. The spigot was removed, after which bromides by the mouth and morphia and belladonna, by the rectum, gradually restored tolerance.

Vaginismus.—I was recently consulted by Mrs. K——, a young lady of small stature and rather delicate frame, who had married three weeks before, and was now worried because some impediment was known to exist. I found on examination that the above named affection was present, the genitalia being so sensitive that the presence of my finger caused the sphincter vaginae to contract determinedly. My diagnosis was psychical or nervous vaginismus, since I could discover neither lesion nor deformity. I ordered separation from her husband for a few days, during which she employed douches, dilatation with a bulb-pointed syringe and digital manipulations. Being still unrelieved at the end of ten days I ordered a dozen M. and B. rectal suppositories, of the same proportions as given in the case first mentioned, one to be inserted two hours before each expected sexual approach. Within a week after these were commenced coition was consummated without difficulty.

Dysentery and Irritable Rectum.—Mr. McC——, aged 46, a stout, healthy iron moulder, came under my care in January, 1879, suffering with severe dysentery, the result of cold, with colliquative sweats and an unusual amount of rectal irritability and abdominal tenderness. After using other remedies for several days, with no improvement, twelve suppositories of M. and B. were ordered. These were compounded by a druggist who evidently was not an expert, for at my next visit three of them were found in the commode among the dysenteric evacuations, not even altered in shape. They had been properly introduced and were each retained fully long enough to have liquified, but failed to do so, being as perfect in form when expelled as when introduced.

Examination of the other nine revealed the fact, that they were hard and badly compounded, and that a few contained about all the active ingredients and the others little or none.

I then ordered another lot to be made by a pharmacist whom I knew to be reliable. Their action was prompt, and in my opinion had a great deal to do with the patient's recovery.

In several uncomplicated cases of dysentery I have found suppositories to be valuable, but in these cases, I must say, I have also seen starch water and laudanum, thirty drops of the latter to half an ounce of the former, injected every four or five hours, prove very efficacious, often more so than opiates given by the mouth.

Sub-acute Sciatica.—January 19, 1885, I was called to attend Capt. J. O. M——, an oysterman, young, muscular, and weighing two hundred and forty-five pounds, who had just reached home, suffering from an attack of sciatica of three weeks duration, complicated with more recent articular rheumatism. Under treatment the rheumatism promptly disappeared, but the sciatica, excessive perspiration and sleeplessness continued to resist opium, quinia, nerve stretching, iodide of potassium, anodyne liniments, blisters, etc., so that up to the forty-third day he was unable to do more than drag the affected limb after him, and was very much discouraged. That day I put him on ten grain doses of potass. iodide before every meal and rectal suppositories, morning, noon and night, each containing one third of a grain of morphia and half a grain of belladonna.

At my next visit, the second day thereafter, his first question was, why I had not given him this treatment sooner, as his sweats were gone and he could already throw the affected limb forward in walking. Eight days after he commenced these remedies he walked to

his vessel half a mile away, and had but little further trouble. I believe the suppositories did this case a great deal of good.

In a case of *Scrofulous Lymphadenoma*, of the mesenteric glands in an elderly woman, in whom the pressure of the enlarged glands occasioned so much entuolginio and abdominal tenderness that it had kept her in bed for several months and had been mistaken for carcinoma, nothing palliated her sufferings as perfectly as suppositories of morphia with belladonna, which made the last five months of her life tolerable, this too after anodynes by the month had become impracticable.

Recently a case of *Sub Acute Peritonitis* in Mrs. W——, a young married woman who had, two years before, suffered a five months attack of peritonitis, which had left her a valetudinarian ever since, amended promptly as soon as rectal suppositories containing an eighth of a grain of morphia and a third of a grain of belladonna was made the chief treatment.

I am now attending a young married woman, leucocythemic and bed ridden who, although free from cancerous or other discoverable malignant affection, was *in spite of treatment* tormented with burning and lancinating pains about the vulva, urethra and bladder for six or eight weeks, who has been entirely relieved of that symptom by suppositories of morphia and belladonna.

Had I no other experience with the combination, the results in her case would give me high respect for it.

Mr. S——, a delicate man with a pendulous scrotum, who was subject to a severe neuralgic pain in the testes, which had annoyed him periodically every few days, for several years, had an unusually severe attack banished by a single *M. and B.* suppository, similar to the formula mentioned in the first case, and he now cuts his attacks short with one whenever they begin.

Nocturnal Enuresis.—Henry K——, aged twelve years who had for years wet the bed nightly, was broken of the habit by inserting a rectal suppository, containing a twelfth of a grain of morphia with three eighths of a grain of belladonna, at bed time every night for twelve nights.

A young man, suffering greatly with spasms of the bladder, due to the presence of clotted blood that had come down from a bleeding kidney, was sufficiently relieved by a heavy dose suppository of morphia and belladonna to allow the introduction of acidulated water

for the purpose of dissolving the clots which had before proved impossible, except when under the influence of chloroform.

I might relate a great many more cases in which I have seen prompt and continued benefit follow the use of anodyne suppositories among them a case of coccyalgia, and several cases of irritable bladder, some due to the extension of gonorrhœa, others to cold or unassignable cause, in which urgent desire to urinate was a prominent symptom.

The good effects of either morphia or of belladonna, or a combination of the two on a suitable case can generally be perceived as surely as one can those of atropia in a photophobic eye.

I have ordered them in an anal fissure with ulcer, in which spasmodic contraction of the sphincter ani was present, also in a case of irritable hemorrhoids, but the pain and soreness in these cases defeated all attempts to insert them, otherwise I believe they would have proven useful.

I have never in a single case had to discontinue the use of either morphia, or belladonna, or a combination of them, on account of its inefficiency, but have met cases in which, although useful, I had to either increase the intervals, lessen the quantity, or discontinue entirely, morphia, on account of dizziness, nausea, constipation, etc., and belladonna, on account of facial congestion, dryness of the throat and skin, huskiness of the voice, visual disturbance, delirium, etc.

When one prescribes these remedies, to prevent alarming the patient or his friends, it is well to mention the possibility of the occurrence of these symptoms, and to tell of their lack of gravity.

After extensive and careful observation I am convinced that the dose of morphia and of belladonna, and of many other remedies, per rectum, should not be much, if at all larger, than that when given by the mouth, the books to the contrary notwithstanding. The evils of too large a dose, overbalance the benefits, and I think it more than probable that a majority of those who essay to give anodynes by the rectum commit the error of giving doses entirely too large.

In rectal suppository, I prefer the ordinary extract of belladonna to the alcoholic extract, I also prefer morphia to opium, as being more absorbable. I also prefer, as the excipient, the soft and flexible glycerine jelly, which is cleanly and can be readily handled during warm weather without melting. Glycerine jelly is readily soluble in the rectum, and, when newly made, being of an animal nature, is rapidly absorbed, but, if the suppositories are not likely to be used

within a week or two, I had rather depend on cacao butter, as the glycerine jelly gradually dries out in keeping, and becomes less soluble, while those made with good quality cacao butter will keep indefinitely.

I find pure cacao butter to possess two rather peculiar properties : It never greases the box or other article in contact with it, and, it may be kept for years without becoming rancid. I recently examined a lot that had been kept in stock, by a pharmacist, for sixteen years without undergoing any perceptible change.

During warm weather cacao butter is apt to be adulterated, by indifferent pharmacists, with white wax, to facilitate the preparation. I believe suppositories containing wax to be inert, as I have seen them passed, without undergoing solution, after they had been in the rectum of a patient with a high temperature, for two hours.

In my opinion wax should never be employed in making a rectal suppository.

One advantage that cacao butter as the excipient has, is that every pharmacist has it at his command, while glycerine jelly, which requires a great deal of nice skill in its manufacture, is in consequence, somewhat of a specialty with a few leading pharmacists.

To prevent being led into possible error, it should be borne in mind that cacao butter is a vegetable fat, and that as such it is but imperfectly absorbed by the rectum, but that this is not fatal to its use, since its being a fluid at the temperature of the rectum, (fuses at 86 degrees Fahrenheit), allows it to float about in contact with the walls of that cavity, and to offer whatever medicament it contains to the absorbents, which they extract, leaving either all, or a portion, of the cacao butter to be expelled with the next evacuation ; after being evacuated the temperature of the air again solidifies it in the comode, risking a belief that it has been useless. Any one may readily verify the truth of this double assertion by using one in his own person.

I, as a rule, prefer a small (fifteen grain) size suppository, to a large (thirty grain) one, as being easier to insert, creating less desire to expel it, and containing less of the inert excipient.

The quantities of *M.* or *B.* to prescribe, and when they are used in combination, the proportions, must of course be varied according to the patient and his case ; an eighth of a grain of morphia and a fourth of a grain of belladonna in each suppository, being sufficient for some adults. I rarely order more than three times these quantities in each suppository, in any case.

For an adult I prescribe a suppository composed of one fourth of a grain of morphia and half a grain of belladonna oftener than any other, and believe the combination to answer a better purpose, in the majority of cases, than either of the two agents used alone.

I find that anodyne suppositories have not only great *anti-spasmodic* and *pain-relieving* power, but a powerful curative influence over a whole circle of maladies of the bowels, bladder, uterus, urinary ducts and neighboring nerves, depending on *these* features for their continuance; but to use them with success one must closely study their effects and dosage, and carefully apply his knowledge to each case.

The indications for or against the use of anodynes by the rectum are usually exceedingly plain. Cases in which they are indicated do not present themselves every day, but once in awhile a case comes under care in which they are highly proper; particularly when the stomach is too irritable to tolerate the remedy, or is incapable of absorbing it, or where it impairs digestion, or where the stomach needs rest and the patient must have the remedy, or where from any cause the patient cannot or will not take anodynes by the mouth.

The class of cases most suitable for treatment with anodyne suppositories is not exactly the class most suitable for anodynes hypodermically.

I have not found belladonna, alone in suppository, to be at all constipating, and the combination of morphia with belladonna is not nearly as much so as might be supposed.

Vaginal suppositories I shall not mention, further than to state that, on trial, I have not found anodyne medication by the vagina comparable to the same by the rectum, besides, unless great care is taken, suppositories by the vagina may slip out before dissolving, or even after liquifying, may flow out over the vulva, limbs and clothing.

I have recently been endeavoring to incorporate hydrate of chloral in rectal suppository, and find that if we take thirty grains of chloral, one drop of glycerine and five grains of gum tragacanth, pulverize the chloral—then add the glycerine and mix thoroughly—then add the gum tragacanth and again mix thoroughly by means of a mortar and pestle—then let the mass remain covered in a cool place twelve hours, the gum will be sufficiently swollen to allow the mass to be divided and rolled into suppository-shaped masses. These should be kept covered in starch until required for use.

Of these I have used a few only and thus far have found them to

be retained and dissolved in the rectum and to answer the purpose, except that in this form it is somewhat irritating.

If further trial establishes the feasibility and usefulness of administering chloral in this way, I shall be very glad.

I have also been testing whether remedies may not be successfully administered by the rectum *in capsule*, as well as in suppository.

These experiments have thus far extended only to morphia, and to a combination of morphia and belladonna rolled into a mass and placed in an ordinary (mouth) capsule.

I find that the heat and moisture of the rectum readily dissolve the capsule and set its contents free, and that morphia appears to act as promptly and as satisfactorily in capsule as if administered in suppository.

The advantages of capsules over suppositories would be: Absolute accuracy; exclusion of the contained medicament from the air; facility of preparation and dispensing, and cheapness.

I believe that almost any compatible drug that will not have an eroding or irritating effect on the rectal mucous membrane, may be used in gelatine capsule. At all events experiments shall be made and the results reported. Of course a capsule for use in this way requires to be well lubricated before attempting to insert it.

In inserting a suppository or capsule into the rectum, it is surprising to see how adroitly the internal sphincter assists in passing it up into the bowel.

It should be born in mind that the vegetable astringents, and most of the metallic salts are incompatible with gelatine and also with glycerine jelly.

I have not yet given the new style hollow cacao butter suppositories a trial but see no great reason why they may not prove to be a useful addition to our armamentarium.

To prevent mistake, patients should be carefully informed how suppositories are to be used. I have known a resolute patient to swallow five tannic acid suppositories before his ludicrous mistake was discovered.

Finally, it will readily occur to each of you that anodynes by the rectum would be available in relieving chordee and spasmodic stricture, also some forms of dysmenorrhœa, and many other intrapelvic affections not mentioned in this paper; also, to obtain a good night's rest in articular rheumatism with hectic sweats, or wherever

there is a simple cutaneous exhalation, as in phthisis, or as a local anodyne in any case where necessity exists for sparing the stomach. Indeed, suppositories are especially useful when the patient suffers from nausea and vomiting, as in some forms of sick headache. I have found that a single suppository, containing a third of a grain of morphia is a charming remedy in many cases of sick headache.

My object, Mr. Chairman, in broaching the subject of rectal medication, to-day, is more to commend the remedies mentioned, than to give an extended citation of cases, or offer a complete resumé of the subject. I conclude with the hope that those who have tested the utility of the remedies I have mentioned, have been as fully gratified by the results as I have been, and that those who have not resorted to this mode of medication will give it a fair and full trial.

