

The latter cause, alcohol, exists everywhere, and in our fight against tuberculosis we must join the forces arrayed against intemperance in the use of alcohol. When one is well fed and well aired, so to speak, he does not need or feel the need of alcoholic stimulants. Therefore preach good food and fresh air as the most powerful influences against strong drink.

The most valuable asset of any community or nation is healthy, strong inhabitants, and these are obtained by protection from pernicious influences and proper culture. Good fruit is produced by the protection of the plant from injurious influences, weeds, insects and the like, and by affording a soil favorable for the normal development of that particular plant. So with the human being; protect him from the various debilitating influences and specific infection; and afford him favorable conditions for healthy, normal growth, and the result will be a healthy, normal man, even if he may have had an indifferent inheritance.

With tuberculosis we must continually insist upon the danger of tuberculous sputum, and hence the positive danger, always present, of promiscuous spitting; and, secondly, insist upon the importance of wholesome living — fresh air, good food, rest and cleanliness. We shall never stamp out consumption by directing our efforts solely against the source of infection. We must also labor to promote conditions of wholesome living; teach the people the elements of personal and house hygiene; teach them what is and how to obtain this wholesome living. On these two lines of effort must we depend in our exertions to stamp out the disease.

THE TREATMENT OF HEMORRHOIDS BY THE GENERAL PRACTITIONER.

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It should be within the province of every general practitioner to successfully treat the more common rectal diseases. That all patients do not get the careful consideration they deserve is sometimes apparent to one who sees many such cases. There is no branch of surgery or medicine that will be more satisfactory to the practitioner than the proper treatment of rectal affections. The reverse, however, holds true when the same ointments, the same suppositories and the same laxatives are prescribed in all cases. Within the past decade there have been many advances in rectal surgery, and a great effort has been made by a number of earnest workers in this country and abroad to elevate this specialty to the place it deserves with the profession. It is to be hoped that the days of the advertising "pile quack" are numbered and that soon all these unfortunate sufferers will receive the consideration from the profession that their importance merits.

Of the different diseases of the rectum, in private as well as in hospital practice, hemorrhoids are most frequently met with. They may be

briefly classified as external and internal. Of the external hemorrhoids but two forms are common, namely, the thrombotic and the external connective tissue hemorrhoid. A thrombotic hemorrhoid is an extravasation of blood at the anal margin beneath the skin covering the external sphincter extending slightly into the anal canal. This condition is very painful for two or three days, that is, until the clot has been absorbed to the extent of relieving the pressure upon the sensitive nerves at the anal orifice. The thrombotic hemorrhoid is sometimes mistaken for strangulated internal ones, and much unnecessary pain has been caused by attempts at their reduction. They are caused by straining at stool, lifting, or by a paroxysm of coughing, when suddenly a painful swelling, cystic in character, of an oval or circular shape, appears at the anal margin. The size may vary from that of a pea to a small English walnut. They are usually single, or there may be two or three.

In a case very recently under the writer's observation three different extravasations took place within three weeks, which were at last accounted for by the fact that the patient had misinterpreted the instructions that had been given him by his physician to cure his constipation. He had been told to go to stool every morning in order to establish regular habits. While at stool he would strain violently and in this manner caused three different thrombotic hemorrhoids. When there is a history of hemorrhoids developing suddenly, and accompanied by pain in a patient previously free from this affection, this condition may be expected.

Their treatment is simple, effective and at once relieves the patient of all pain. With a hypodermic syringe to which is attached a fine, sharp-pointed needle, inject a 1% solution of eucaïne in the following manner: with the left index finger and thumb grasp the peri-anal skin near the swelling and pinch for a moment to numb the part and then insert the needle very superficially just under the skin, slowly injecting the whole of the top of the tumor well over into the anal canal. It is best not to inject within the swelling, but simply in a line of the proposed incision. Then with a curved bistoury transfix the base of the swelling and cut outward. The clot usually expels itself, but if necessary curette lightly and pack firmly with a strip of iodoform gauze, which should remain *in situ* for twenty-four hours that another clot may not form. This simple, painless operation is at all times successful, and will be much more grateful to the patient than lotions, ointments or other palliative measures.

That form of external hemorrhoids, known as "connective tissue hemorrhoids," "fleshy piles," "skin tags," etc., is simply redundant folds of peri-anal and anal skin, caused by the stretching in this region during the passage of large, hard fecal masses. The over-stretching causes the normal folds to be slightly torn, at which point a mild infection takes place, on the subsidence of which the folds do not contract to their former

size. When inflamed, they become excessively painful and render walking and sitting difficult. The external sphincter is sometimes much hypertrophied and thickened. When acutely inflamed and the external sphincter is not hypertrophied, a palliative course should be advised. The constipation from its etiological importance should receive attention with appropriate laxatives. The following treatment as recommended by Goodsall and Miles of London has been found very satisfactory. After bathing the parts with warm water and drying, carefully wipe the anal region with cotton wool which has been wet with olive oil. This removes all adherent secretions, as well as ointments which may have been used previously. After this has been done, apply the following ointment:

R̄ Zinci oxid., ʒii
 Linimenti camph., ʒss
 Vaseline, ʒi

Fiat. Ung., Sig. To be used at night, and dust during the day with a powder composed of

R̄ Zinci oxid., ʒss
 Pulv. camph., ʒii
 Pulv. amyli., ʒx

Fiat. Pulverum

After the acute symptoms have subsided, the following simple procedure will prevent further trouble. After injecting with eucaine 1%, using antiseptic precautions, these hemorrhoids may be removed with a pair of curved scissors and the resulting wound allowed to heal by granulation, or if the base of the hemorrhoid was broad, the wound may be united with catgut sutures. When the folds are numerous, only two or three should be removed at one time lest anal contraction take place. Later, should it seem necessary, any remaining may be similarly dealt with. As previously mentioned, the external sphincter is sometimes thickened and hypertrophied and an anal fissure or painful ulcer may complicate external hemorrhoids. Therefore, we must not jump to the conclusion that inflamed external hemorrhoids are the whole trouble when called to a case. The following in this connection demonstrates well the futility of local treatment when such a complication exists.

On Nov. 11, 1904, I was called to see Mrs. W., age twenty-six, whose symptoms began one week before childbirth with slight pain at defecation. For six weeks she had been gradually getting worse. The pain had become continuous and sitting or walking was almost impossible.

Rectal Examination: There were three large external hemorrhoids acutely inflamed; external sphincter spasmodic and irritable to touch; unable to make digital examination. As patient had received the best of palliative treatment from her physician without avail, an operation was advised for the next day. She was in such a nervous state from loss of sleep and pain that an ether operation was decided upon.

November 12. Under ether anesthesia I divided external sphincter in right posterior quadrant, found linear ulcer three quarters of an inch long just inside external sphincter near upper border of which were two small polyphoid growths which were removed. The three large external hemorrhoids were removed

with scissors. One very small internal pile was ligated. A perfectly normal recovery took place in ten days. Absolutely free from all pain immediately after the operation. In this instance the infection evidently took place from the ulcer just within the anal orifice, but from external appearances one would only have expected an attack of inflamed external hemorrhoids.

Internal Hemorrhoids. — Since operations, as the ligature and clamp and cautery, will absolutely cure all cases of internal hemorrhoids, it is customary whenever a patient seeks advice, complaining of "bleeding and that lumps come down," to immediately recommend the operating table, and sometimes even without the formality of a rectal examination. That the great majority of cases of internal hemorrhoids can be operated upon under local anesthesia or otherwise satisfactorily dealt with is not always recognized. Dr. Gant of New York, in a recent communication to the *New York Medical Journal*, makes this statement: "It is difficult to understand why surgeons continue to insist that patients forego business and social engagements, enter the hospital and submit to operations requiring general anesthesia for the relief of rectal ailments which could be radically cured in the office by medicinal agents or by trivial operations under local anesthesia. Recently the writer has not sent more than one in ten of his private patients to the hospital, because he has found that they can be successfully treated in the office."

Under date of Oct. 29, 1904, *New York Medical Record*, Dr. Gant reports one hundred and twenty-six cases of internal protruding or bleeding hemorrhoids that were operated upon by sterile water anesthesia as follows: 116 by ligature, 6 by incision and 4 by clamp and cautery. He further states that, "except for the stinging pain sometimes induced in the beginning of the distension, the patient has but little discomfort during and immediately following the operation." This paper would lead one to infer that the ligature operation was the one of choice, but whether this method is capable of application in all cases we are left in doubt.

The author of this article has never operated upon a case under local anesthesia when there were more than three bleeding and prolapsing tumors, believing that, as more extensive operations necessitated the patient's confinement to bed, there could not be the same objections to a general anesthetic. Nor have the clamp and cautery and incision methods ever been tried by the author for the reason that the ligature method is, if anything, more effective, requires less manipulation of the parts, and can be performed in much less time, which is an important consideration when operating under local anesthesia. To better illustrate the plan of treatment of internal hemorrhoids without the use of a general anesthetic the following histories are submitted:

May 2, 1904, A. K., age forty-three, married, occupation, nurse. Duration of rectal disease, twelve years. Complains of aching pain over dorsal aspect of sacrum. Has had hemorrhages at defecation for three years, which are considerable at times. Says there are pro-

trusions from the anal orifice at all times which greatly interfere with sitting or walking. Has an abundant and jelly-like discharge. Constipation alternating with diarrhea.

Rectal Examination: Peri-anal skin normal, anal orifice closed. There are three redundant folds of anal skin (external hemorrhoids). The external sphincter is slightly relaxed. In the anal canal there are five good-sized hemorrhoids protruding at examination. The internal sphincter and levator ani possess good power. In this instance, owing to the size and number of the hemorrhoids, an operation under general anesthesia was advised, but, as the patient was "out on a case" which she was much averse to leaving, the injection treatment was successfully carried out as follows:

On May 16, the colon having been emptied by means of a saline cathartic and a large enema of soap and water, taken three hours previously, she reported for the first treatment. The hemorrhoidal masses were rendered surgically clean by bathing the parts with soap and water and a bichloride solution. The right and largest hemorrhoid was slowly injected with twelve drops of Shuford's solution, the formula for which is

R	Acid Carbolic,	3ii
	Acid Salicylic,	3ss
	Sodii Biborate,	3i
	Glycerine (sterile),	qs ad 3i

After the injection, the hemorrhoids were returned within the bowel, a one-grain opium suppository inserted and a T bandage with moderate pressure over the anus applied. Directions were given to move the bowels on the second night with ext. cascarae sagradae 3ss and to secure daily evacuations thereafter with the same laxative. The remaining hemorrhoidal tumors were treated as above described, except that the amounts of the solution injected were less as the hemorrhoids were smaller. The amount varied from five to eight drops. But one hemorrhoid required a second injection. The injections were made one week apart, and neither ulceration nor pain followed any of the treatments. After the injections were completed, two of the redundant folds of external skin were removed under eucaïne, as has been described.

November 10, three months after the last treatment, patient reported all symptoms relieved, no hemorrhages or protrusion. Examination shows a normal condition of the anal canal.

This case is cited to show the satisfactory results that may be obtained with the injection treatment, a method that has been decried by many as unsurgical. Like many other procedures, its use in unskilled hands has brought this form of treating internal hemorrhoids into disrepute. Nearly all the solutions used contain carbolic acid.

Dr. Collier F. Martin of Philadelphia, who treats all cases of internal hemorrhoids by the injection method, uses phenol sodique and distilled water, equal parts, freshly prepared. He emphasizes that the French preparation phenol Boboeuf is the most satisfactory. This preparation was used by Dr. Martin's father in four thousand cases, while the doctor himself has employed it in over six hundred cases. With phenol sodique the writer has had no experience. The aim should be to secure

an injection which will set up the necessary inflammation in the hemorrhoidal mass to cause a gradual obliteration of its vessels, and at the same time a formation of fibrous tissue takes place which binds the mucous membrane of the anal canal closer to the muscular layer of the rectum. The injection should not be strong enough to cause sloughing of the hemorrhoidal tissues.

The writer does not wish to be understood as an enthusiast over this method to the exclusion of others, but does believe that in properly selected cases, where the external sphincter is somewhat relaxed, or can be gradually dilated without too much discomfort to the patient and the tumors exposed for injection, perfect results may be expected. However, when the hemorrhoids are not very large, or over three in number, they may be treated radically and in less time by the ligature, as the following case will illustrate:

W. H., age forty-seven, married, occupation, wine merchant. Duration of disease, three and a half years; no pain. Is losing large amounts of blood at stool, is markedly anemic and reduced in weight from 180 to 162 pounds. Constipation is relieved by the use of aperient pills.

Rectal examination: No folds of redundant skin; external sphincter normal, that is, not irritable or hypertrophied. Two capillary or nevus-like internal hemorrhoids, one to the right and one to the left of the post median line. Do not protrude, but can be brought to anal orifice by manipulation. When patient strains down a general oozing of blood takes place. Internal sphincter and levator ani good power. Examination of rectum and sigmoid with pneumatic proctoscope negative.

November 11, under eucaïne anesthesia, in office, I ligated the two bleeding hemorrhoids with separate ligatures. A pile hook was used to secure the right and an artery clip to bring down the left with. With a pair of straight, sharp scissors an incision one fourth of an inch in depth was made about the base of the tumors at the muco-cutaneous junction which separated them from their attachment to the muscular layers of the rectum. Each hemorrhoid thus freed was tied with a well-sterilized plaited silk ligature, size No. X, an assistant making slight traction over the instrument holding the hemorrhoid down as this was done. These hemorrhoids did not protrude, but under eucaïne I was able to ligate them high up with but slight inconvenience to the patient.

Three days later patient returned to office. Has been to place of business daily since operation; complains only of soreness. Passed some blood at first movement of the bowels, but none at the second. November 18, one week since operation, soreness only. Rectal examination shows ligatures to have separated. Has been no bleeding since first stool after operation. Seven weeks after this operation his family physician told me that Mr. H. had gained twenty pounds in weight, the anemic condition had disappeared and that his general health and strength was better than it had been for years.

Those cases in which the hemorrhoids protrude will be found easier to operate upon under local anesthesia than the case just described. When there is redundant skin corresponding to the internal hemorrhoid to be removed, the author

adopts the U-shaped incision, as recommended by Goodsall and Miles,¹ by means of which the ligature "includes both the internal hemorrhoid and its corresponding fold of skin. The advantages of this modification are that one ligature answers for both the skin and the internal hemorrhoid, that often it is not necessary to remove any skin subsequently to the operation, and that the operation is much shorter."

The writer has seen this operation performed many times by Mr. Goodsall at St. Mark's and Mr. Miles at Gordon's Hospital, London, side by side with the ligature method as performed by the other surgeons of those institutions. These two hospitals, as may be known, treat only diseases of the rectum, and the amount of clinical material is practically unlimited. These cases were seen daily in the ward, followed until discharged, and the advantages of the modification seemed to the writer to be: That the correct amount of redundant skin was much better estimated and that there was not so much danger of anal contraction from removing too much, or the opposite annoying mistake of leaving irregular skin tabs to become inflamed later.

In conclusion the author wishes to reiterate that the great majority of cases of hemorrhoids of whatever form can be treated radically, satisfactorily and with little discomfort to the patient at the physician's office. It should also be emphasized that the after treatment of these cases requires careful attention. The bowels, as a rule, should be confined for forty-eight hours. On the second night, half a drachm ext. cascara sagradae fl. should be given and sufficient thereafter to secure daily evacuations. The anal region should be kept scrupulously clean, and a pad of cotton wool, wrung out of bichloride solution, $\frac{1}{1000}$ placed over the anal orifice is more acceptable to most persons than a dry dressing. Good drainage must be secured and the necessary topical applications made to induce rapid healing. Should there be much pain or soreness (which is rarely the case), it can be relieved by anodyne suppositories of morphia, cocaine, or combinations of both.

An irritable or hypertrophied external sphincter is occasionally the cause of pain after these operations. This complication can be avoided by a complete division of both layers of the muscle, a painless operation, under eucaine. On no account should the internal sphincter be damaged as incontinence might follow.

CONSUMPTION AND ITS BORDERLAND. PUBLIC AND PROFESSIONAL CONCERN.*

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NOTWITHSTANDING the gigantic advancement of medical science from the time of Hippocrates, particularly in the last half century, the mor-

talidity due to tuberculosis remains practically in the same ratio in most countries as it was then. A fifth or so of the death-rate still occurs through its ruthless effects. It is still the most widely scattered, the most prevalent, and the *one* perpetual plague universally. It still consigns to the tomb more people than the slaughter of war in all its atrocious forms. The death-roll of all the wars of the nineteenth century is estimated at 14,000,000¹ and that of consumption in the same period and countries at 30,000,000. Germany, which seems to have the most comprehensive and reliable mortuary statistics, in reports for 1894 (which in all essentials apply to all civilization), shows that 116,705 persons perished that year in that country from the results of the following infectious diseases: diphtheria, croup, scarlet fever, whooping cough, measles and typhoid fever, and that consumption alone killed 123,904, *i. e.*, 7,199 persons more than the six other scourges together!

Besides this disheartening destruction, consumption is a formidable world-wide problem from the view point of economics, for it affects not only the young who are unproductive, but 75% of its victims are among self-supporters, bread-winners of families and the helps of the nations — men and women from the age of fifteen to seventy.

Our country's yearly death-rate from it is approximated at 160,000. It invalidates, on the average, each victim at least one year. My experience inclines to two, during which each subject is unable to work or produce. Of these invalids perhaps one fifth are not wage earners and have incomes continuing while sick. The remaining four fifths lose their previous daily revenue. If we estimate that all of the latter are too ill to earn anything for one year, and that each of them was previously earning one dollar a day three hundred days a year, what does it represent in yearly loss? Thirty-eight million, four hundred thousand dollars. If the average length of invalidism is two years it means a loss of \$76,800,000 a year. These are flat losses of income. Other losses in the form of expenses for medicines, physicians, nurses, traveling, dietetics, funerals, etc., would aggregate as much perhaps, but they merely change hands and therefore benefit somebody.

Yet we live in the midst of this frightful devastation with equanimity, we witness the daily horrors and the cruel sufferings it engenders all about us with calm unconcern. If smallpox arises, we take to the woods; if scarlet fever, we barricade our families; if diphtheria, we almost abolish the breathing of our children for fear they might inhale its germs, but we allow with indifference the seed of consumption to be sown in our homes, in our schools, in our stores, in our churches, in our playhouses, in our public buildings, in our public conveyances, on our sidewalks, everywhere, and we breathe infected air with stoic indifference; we eat from infected dishes without a thought of danger; we view the

¹ Richet.

¹ Diseases of the Anus and Rectum, p. 292.

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