and desquamation on the fourth; on the sixth she had photophobia, coryza, and twenty-four hours later an eruption of measles; she died on the fifteenth day from the first symptoms of scarlet fever, of bronchopneumonia.

All of these children had had a known exposure to measles, and none had had the disease before; the eruption in each was typical of measles as well as of the scarlet fever.

Scarlet Fever and Malaria.—One patient only presented this complication—a girl, 3 years old, who had lived in a markedly malarious district, but who had never had malaria. The scarlet fever was a severe type, the angina severe; there was a discharge from both ears on the fourth day, the morning temperature 104 F., the noon 101 F., and at 9 p. m. it was 106 F.; there seemed to be no reason for the excessive fever. On the sixth day the child fainted, without apparent reason; this was repeated in the same manner in the evening, the temperature fluctuating between 102 and 104 F. On the thirteenth day there was a chill, repeated on the fifteenth, and on this day a well-marked endocarditis was found; the child was much exhausted, fainting whenever lifted. On the sixteenth quinin was administered. On the eighteenth she had another chill, with a mild convulsion; the spleen was much enlarged. There was neither chill nor fever after the twenty-second day. The endocarditis disappeared and, except for a chronic otitis media, the child completely recovered. No examination of the blood was made, as at the time when the examination would have revealed the organisms, I considered that the child was in so precarious a condition that even a small puncture might precipitate a fatal fainting spell. The care which the mother bestowed on this child helped materially to save its life.

Secondary Attack.—A boy, in June, 1895, presented a well-marked mild type of scarlet fever, a mild endocarditis accompanying. Desquamation was marked, the child completely recovering. In January, 1896, while in apparently good health, there was severe vomiting for twenty-four hours, then eruption, with severe angina, mild endocarditis, nephritis and otitis media, followed by good recovery.

Scarlet Fever and Wounds.—Three patients presented this complication.

CASE 1.—A girl 3 years old had a tumor of the larynx removed at the N. Y. Infirmary for Women and Children. On the third day after the operation she developed scarlet fever with a moderately severe angina and nephritis. She wore a tracheotomy tube throughout the illness, and nothing abnormal was noted about the wound. The child had been visited by her mother, who had just come from a child dying of scarlet fever.

CASE 2.—A child, 3 years old, on the third day of her scarlet fever, received a lacerated wound of the scalp, which remained unattended for twelve hours; it healed rapidly, the child presenting nothing abnormal.

CASE 3.—A child of 2 years, on the eleventh day, was severely scalded on the scalp. The ulceration was deep and extensive, in some places reaching the bone, but the child, after a tedious illness, recovered.

Unusual Onset.—

CASE 1.—A boy, 4 years old, was "feverish" for eight days, then the right hand and foot became suddenly swollen and painful, and there was slight vomiting. Twenty-four hours later there was a well-marked eruption of scarlet fever. With the appearance of the eruption the swelling extended to all the joints of the extremities, with an accompanying angina. Careful exam-

ination of the urine revealed a few red blood-cells; on the fourth day a faint, rough blowing murmur was heard with the first sound of the heart. Desquamation began on the fifth day. On the sixth day pain in the joints was severe, and there was a pericarditis with effusion, and the heart was irregular, at times only one sound, and this changing from a rough blowing to a musical whistling sound, alternating at short intervals. The urine at no time showed casts or albumin; the red blood-cells disappeared on the fourth day. The child recovered with a permanent endocarditis of the mitral valves.

Heredity.—Nothing was especially marked except alcoholism in one or both parents, in about one-third of the cases.

Personal History.—Marked rachitis existed in a large number of patients; otherwise there was nothing special in the personal histories.

First Appearance of Abnormal Symptoms.—In twenty-six patients the abnormality was noted later than two days.

Fever.—This varied from 103 to 108 F., falling to normal at periods varying from four to twenty-one days.

TWO HUNDRED AND TWENTY CASES OF HEMORRHOIDS, OPERATED ON SUCCESSFULLY BY THE LIGATION METHOD.

BY JOSEPH B. BACON, M.D.

CHICAGO.

This list was compiled from consecutive cases and there was no death and only one complication occurred in the entire series. While this is very gratifying, it does not necessarily prove anything unusual in this age of antiseptic surgery, since Mr. Allingham, of London, has reported four thousand consecutive operations for hemorrhoids by the ligation method without a death. But it is especially important that these successful cases should be published because of the prejudice of the laity against any surgical procedure for the relief of piles; a prejudice which unfortunately too often is shared by the general practitioner of medicine. In the one case mentioned above, during the second week of convalescence, I noticed one ligature remaining. It seemed to be loose and I removed it by very gently dragging upon it. There was no hemorrhage at the time, but during the day, when the patient assumed the upright position, there was an internal hemorrhage filling the rectum. The patient feeling a desire to go to stool, the hemorrhage was noticed and the house surgeon tamponed the rectum. The tampon was left for twenty-four hours and the patient confined to bed. I report this case to illustrate the following points that are necessary for success: 1. The reason for this ligature being retained in place for two weeks was that it was too coarse and did not permit the knot being sufficiently tightened, so that it would cut through the pedicle in three or four days. I have in all cases used fine silk since this accident, and have never found it necessary to remove a single ligature, and rarely does a ligature remain a week. 2. The hemorrhage was internal until the quantity produced a desire to go to stool, showing that serious hemorrhage can take place without external evidence and that the nurses should be taught to notice general symptoms of hemorrhage after each stool until the ligatures are all passed. 3. If it becomes necessary to remove a ligature, always procure a good light and remove it only by cutting the loop, so as not to disturb the organized clot in the blood-vessel. 4. In case of hemorrhage after hemorrhoidal operation, remember the wounds are all within the grasp

of the internal sphincter and can be easily seen and bleeding points secured by forceps or by a tampon of sterilized gauze or cotton placed so as to be grasped by the sphincter ani muscles.

The death-rate can be thus reduced in hemorrhoidal operations, by means of cleanliness at the time of operation and after the operation by both surgeons and nurse. I make it a point to use the same care in preparing the patients, the ligatures, the instruments and my hands as if I were going to open the abdomen. While it is all but impossible to make the rectum free from pathogenic germs, yet if one is careful not to introduce them from instruments, ligatures, fingers, dressing or from the adjacent skin about the anus, the danger is reduced to simply a possibility. While we often fail to secure primary union of the wound, there is free drainage, and I have never seen an abscess or any sign of deep infection in a single case.

Another reason why I have had no deaths from hemorrhoidal operations is that I have refused to operate on patients suffering from serious organic diseases of the heart, lungs, liver or kidneys. Hemorrhoidal operations are rarely performed to save life or to prolong life. Hence one is not justified in taking risks such as would be taken if an operation was to be performed for a patient suffering from the above diseases. We operate in most cases to save suffering from protruding piles, or to save the patients from inconvenience of replacing the tumors after stool; or to relieve them of the dread that the piles may become inflamed and the cause of suffering later in life. It is rarely that one is called to operate for hemorrhage, probably not more than one case in twenty being of this nature. The hemorrhage, if not prolonged and recurrent, relieves the patients' symptoms and they decide to postpone operative interference. When a patient is doomed from some serious organic disease, and has but one or two years to live, operative interference for hemorrhoids is very rarely indicated. I have never seen a case of hemorrhage from piles that could not be controlled within a few days and usually in one, by having the patient move the bowel only at bedtime, and then after a copious enema, in order to free the rectum from feces and thus remove congestion from the internal hemorrhoidal veins. Then treat the wound antiseptically. The six or eight hours in bed usually permit the rent in the veins to unite. In those cases of piles where I refuse to operate, I advise the patient to use daily enemas at bedtime, and thereby keep free from hemorrhoidal pain and discomfort, and as they have only a short period to live, they will not be injured by the use of the rectal flushings.

I prefer the ligature method over all others, because it is a finished, accurate operation. One is able to remove the redundant skin tags opposite each internal tumor, and thus demonstrate to the patients that all tumors have been removed. In most cases where the tumors are large enough to necessitate operative interference, the veins anastomosing between the internal and external groups of veins have become varicose, and unless a section of these is removed from each side of the anus, the operation may in time prove a failure by the return of the internal tumors. These veins can not be removed except by dissecting them out and ligating them. I have never seen a single case of hemorrhoids return where these anastomosing veins were also dissected out and the external skin tags and underlying veins were removed. In short, I think it all but impossible and certainly very improbable that a patient will have a recurrence of piles if the modern ligature method is used.

Acutely infected hemorrhoids should be operated on and a permanent cure thus secured. I have often done this with most gratifying results. The patient is at once relieved of the throbbing pain, because when we operate we thoroughly divulse the sphincters and the recovery after the operation is as rapid and the patient is not confined to bed any longer than would be the case were the acutely inflamed tumors left to a conservative waiting method. Thorough preparation of the patient before operating is necessary.

My routine plan is to give six grains of pill. hydrarg. at bedtime. The following morning, on an empty stomach, a Seidlitz powder is given and repeated every half hour until the discharges are free from fecal matter. One powder may suffice, yet as a rule two to four are necessary, and occasionally eight or ten. If the hemorrhoids are acutely inflamed, protruding and painful, the operation should be performed as soon as the bowels are thoroughly empty; otherwise I postpone the operation until the second day, meantime keeping the patient on a liquid diet and 1-30 grain of strychnin by mouth every six hours.

After the patient is anesthetized, the rectum should be thoroughly irrigated and the skin around the anus should be thoroughly scrubbed with brush and soap, then with sublimate solution and alcohol. Another important point is the dressing of the wound. A rubber tube four inches long and one-half inch in diameter is covered by several layers of sterilized gauze, making the diameter of the tube and gauze one inch. Sterilized vaselin is now applied to the gauze in order to prevent granulation tissue invading the meshes of the gauze. This tube is inserted between the blades of a bivalve rectal speculum, three inches into the rectum, so as to reach above the circular fibers of the levator ani muscles. If a bivalve rectal speculum is not used to distend the rectum in inserting the tubes, the gauze may pull a ligature off and necessitate religation of the blood-vessels. Sterilized gauze is now packed around the end of the tube so as to compress all capillary blood-vessels. A cotton compress is placed over the gauze and held in place by a bandage. We now have a clean wound covered with a clean dressing, and it is very important to keep it so. I am convinced that many cases are infected by not attending to the details of applying the bandages. We often see a bandage applied, and if the patient is examined in a few hours, the dressing is misplaced and the wound exposed to the atmosphere and bed clothing. The only way to apply a bandage that will keep everything in place is to pin a long roller towel around the waist tightly so that it can not slide over the pelvis, then take a roller bandage and fasten one end of it to the towel when, by passing it back and forth, each time passing it under the towel and drawing it tight over the dressing, all will be securely held in place. The cotton compress is changed the second day, as some serum will have soiled it, but the gauze and tube are left in place until the fourth day. To remove tube, give a Seidlitz powder before breakfast the fourth day, and repeat it in half an hour and, as soon as the patient feels the effect of the Seidlitz, give an enema of two quarts of sterilized water through the tube. Have some cotton and dressing forceps ready and, as the syringe point is withdrawn from the tube, plug the end of the tube with cotton. Remove the bandage and the tube will pass with the bowel movement without dragging on the sutures, as the enema will have dilated the rectum and loosened any sutures that might be adhering to the gauze. After the first dressing the wound should be washed daily with a 1 to 2000

sublimate solution, or oftener if bowel movement occur, and dressed with sterilized vaselin and gauze. The bowels should be moved daily by enema, and the patient compelled to use the bed-pan, and under no condition go to the closet for the first ten days, otherwise the wound will be torn open by the peristalsis and recovery delayed. Experience has taught me that this detailed advice must be given to the interne and nurse if we are to have satisfactory results after these operations, hence I have taken the liberty of lengthening this paper with minute instructions for the benefit of inexperienced operators.

TWO PRACTICAL POINTS IN CARE OF THE TUBERCULAR.

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As we are getting to know more of the nature and progress of tuberculosis, we are becoming more practical and hopeful in the care of it. Our therapeutics is founded on a definite pathology and is, for that reason, more positive and exact than ever before, and it is not assuming too much to say that the results are better. There is no disease where attention to the minutest detail of hygiene and function is better repaid. Indeed, these considerations are as important as any attempted specific medication, valuable as that may be.

The old days of practice, when cod-liver oil was prescribed for the stay-at-home cases and a climatic hypothesis for those who had the money and the courage to go, are superseded by a time when the physician interrogates every organ, endeavors to restore each failing function and individualizes each case, both from the standpoint of general and that of specific medication. I would not decry that which we have learned from our fathers. Tonics and nutritives are still needed, but to order these is not the whole duty of the practitioner. Climate has in many cases a wonderful effect, but whether in the average case it will compensate for the advantages of conditions that must be surrendered, is a question for careful thought.

Believing that the very best results in the treatment of tuberculosis are in cases where the comforts of home or well-conducted sanatoria are supplemented by well-advised medication, I have almost abandoned climate hunting for my patients. In addition to the possibility of not finding the right climate for the individual case, there is always the problem of comfort and economy to consider and the dangers of nostalgia—no inconsiderable item in the general estimate—and infected resorts. There is no doubt that some of our resorts are fast becoming foci for the dissemination of tubercular infection through lack of common sense precautions.

In the very near future, I believe that the tubercular patient, instead of being sent to California, Texas, Colorado or Arizona—each doubtless having some advantages—or anywhere for "change of climate," will be placed in a well-fitted sanatorium, where, with all the modern methods of sanitation, disinfection, exercise and medication, he will not only have a large chance for complete restoration but will be taught to keep well. The reports from this method of care show that recovery takes place in 50 to 60 per cent. of the incipient cases and in about 25 per cent. of the more advanced. The fact that in Europe, the sanatoria are meeting with so

much success that the United States Government is establishing one or more, that some of the states have already provided for them, and the further fact that steps have been taken in our own city for building and equipping a consumptive hospital, makes this question of interest to every physician.

But the sending of special cases to well-selected climate, or placing them in a well-fitted sanatorium, will never be the complete answer to the demand for the physician's care and study. Most of these patients will always be treated in the home, and it is there that the true physician must meet and, if possible, conquer this most insidious of all foes. The purpose of this paper is to emphasize two, among the many, points that should be borne in mind, and I am the more earnest in speaking of them because they do not receive the attention in our text-books to which I believe they are entitled.

The first of these is the condition of the heart. To almost all of this class, death comes through a steadily failing heart. The heart muscle partakes largely of the strength and the weakness of the general muscular system. In all wasting diseases, the heart muscle is likely to suffer. We recognize the danger in typhoid and in pneumonia, but we sometimes forget it in chronic conditions. I believe that diminished heart power is nearly always a factor in chronic tuberculosis. It is a curious fact that pulmonary tuberculosis is almost unknown in valvular heart lesions where there is compensatory hypertrophy. Is not this due to the condition of full blood-supply in the lung, resulting from the increased pressure in the bronchial blood-vessels? We also know that tuberculosis begins most frequently at the lung's apex, where the blood-pressure is the least. Beginning, as it often does, at the base, it is generally a sequence of pneumonia, having its inception before re-establishment of healthy circulation. We further know that one of the best prophylactics, as well as one of the best exercises for those predisposed to tuberculosis, is chest expansion, which is a direct stimulus to the pulmonary circulation.

On the post-mortem table it is the rule to find flabby and even atrophied heart muscle in cases where the disease has existed for any considerable length of time. We see the results of this toward the end of life, in the feeble pulse, the hurried respiration—not altogether due to lung lesion—and, still later, the edema and the engorgement of the vital organs. I do not believe that it is any stretch of the imagination, or in any sense a false deduction, to say that heart inability is not only the immediate cause of many of the unfortunate phenomena in tuberculosis, but that it is often responsible for the sudden termination in many cases.

It has been my practice for several years to anticipate this complication and to begin very early with such remedies as have been found efficient in preserving the power and action of the heart. Many new heart tonics have found favor with physicians, but I know of none that equals small doses of digitalis with the addition of a little strychnia. If there is much nerve irritability, arsenic may be added or substituted. Much depends on getting pure drugs, and this is especially true in reference to digitalis. Increased and encouraged action favors nutrition and increased power, with return to normal conditions of the nerve and muscular fibers, and increased heart strength gives better circulation and better tension in the blood-vessels of the lung. I am sure that I have prolonged life, in some instances for several years, by attention to this indication.