lateral lithotomy should hold in surgery may be recognised. My object in writing this paper is to show the fallacy of supposing that lithotrity or the suprapubic operation will ever supersede it. Statistics are stubborn facts, which I am sure will colour the question as to the choice of the operation for removing stone in the bladder. I would like to see other operators on stone publishing the results of their labours, being prepared to discuss the merits of their particular mode of operation, as I am anxious to advance the present knowledge of practical lithotomy, the literature of which, it is to be regretted, has had a chequered and uncertain existence in the present generation for want of reliable statistics.

It is quite true that anatomists have to some extent terrified surgeons who have had little practical experience of this operation; but any formidable difficulties which demonstrators of anatomy can represent on the dead subject are purely theoretical, artificial and delusive, and are, probably, fashioned with the scalpel rather with the view to accommodate Nature to descriptive prolixity than to describe the tissues of the perineum as they really exist in their entirety in the living body.

I maintain that the transverse perineal, long perineal, and bulb arteries are small and insignificant, and have never given me any trouble. The pudic artery is the only large artery in the perineum, and this vessel is protected by the tuber ischii. Of course, in searching out the relative merits of the different operations for removing stone from the bladder, it is necessary to work without prejudice, weighing each operation carefully, for it is only then that the interests of mankind can be fairly attended to.

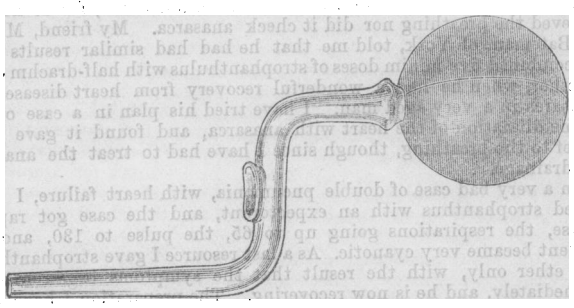
My thanks are due to my assistant, Dr. Bocarro, for kindly presenting me with the plates which are embodied in this paper on lithotomy, and which were drawn by him.

WHOOPING-COUGH TREATED BY NASAL INSUFFLATIONS.

By GEORGE HOLLOWAY, L.R.C.P. and S.Ed., L.S.A.

In the JOURNAL, of July 31st, 1886, under the head of Special Correspondence, is an account of a new treatment of whooping-cough, by Dr. T. Guerder, of Paris. Hitherto our treatment of it has been so futile that I am surprised so little notice has been taken of that communication.

I purpose in the following to give a brief account of twenty-four cases treated by myself during the last five months, with insufflations of boric acid. Dr. Guerder's treatment is based on the theory that whooping-cough is due to nasal reflex action (of parasitic origin) caused by congestion of the pituitary mucous membrane and nasal catarrh. So far as I have been able to observe, the congestion of the respiratory tract so frequently found in this disease always commences in the Schneiderian membrane, and extends from it to the other parts, partly perhaps from the multiplication of the germs, but mostly from the incessant cough which causes a, at first, recurrent state of hyperæmia of the head and neck, and afterwards the established state of congestion which may be found in the delicate lining membrane of the air passages, from its vessels having so little support. In support of this I can only observe that if the congestion of the Schneiderian membrane be relieved by the application of boric acid, the congestion of the other parts disappears also. Now the boric acid, which is a parasiticide, only comes in contact with the nasal mucous membrane, and never reaches beyond the upper part of the pharynx.



I am aware that bacteria and micrococci have been found in all parts of the air passages, lung tissue, and even in the blood, but to all appearance the same may be found in subjects not infected with whooping-cough. I think I am right in stating that the peculiar germ of this disease has not been satisfactorily demonstrated. From its infectious nature there can be little doubt but it is due to a specific germ, but until its nature and appearance are definitely proved, we cannot be sure of its habitat. At the same time it is an interesting fact that if the irritable condition of the pituitary membrane be relieved, the other parts will be quickly restored unless complicated by some other lesion.

The method of treatment which I adopt is as follows. I confine the patient to one room for a week or ten days, and I instruct that each nostril be insufflated every three hours during the day, and once during the night, with from two to three grains of finely powdered boric acid. I make no difference in the diet, unless there is some special circumstance which calls for it. At the end of ten days I allow the child to go out in favourable weather. My chief trouble at first was with the instrument. An ordinary insufflator of small size acted fairly well for a day or two, and then became inefficient from the powder fouling the valve, and finding its way into the ball, at the same time it was much too costly to come into general use amongst poorer patients.

The accompanying wood-cut illustrates one I invented. The tube is of glass, and is made so that in case of breakage a child might fix in another. The two bends are to do away with the necessity for a valve. The powder is put in the hole in the horizontal position, and lying in this position cannot easily be shaken down into the ball. Instead of the sliding arrangement to cover the aperture, the forefinger of the left hand is simply placed over it, the ball being pressed at the same time with the right. The aperture of the nozzle is not much contracted, so that the powder is scattered over the whole surface of the nasal mucous membrane. It is cleanly, efficient, and simple, and can be bought of Messrs. Mappin, of Birmingham, for 1s. 6d., which brings it within the reach of all.

Of the cases treated by me, four were in babies under 6 months, five more were under 1 year, seven were under 2 years, four under 3, two under 4 years, and the remaining two were 6 and 8 years old respectively. One case in an adult was without much success, as the treatment was not persevered in. Of these cases, one half had been suffering from one to three weeks when first seen by me, and of the remainder, eight were seen from the commencement. My first two cases are instructive, inasmuch as the elder child, aged 4 years, was hurt and frightened during the first insufflation through the clumsiness of the nurse, and would not afterwards submit to treatment; consequently she was still coughing at the end of five weeks. Her little brother, a baby of 10 months, who had a much more severe attack, was completely cured in twenty-one days. The cough, which amounted to about twenty-eight paroxysms in twenty-four hours when he first came under treatment, was reduced to half that number by the end of the second day. The improvement continued, and at the end of seven days there were only six paroxysms, at fourteen days only two in twenty-four hours, and at twenty-one days there was no cough at all. The vomiting, which was at first a troublesome symptom, gave no uneasiness after the second day. Two cases were complicated with pneumonia, aged respectively three and six years; they had each suffered from whooping-cough at least three weeks before I saw them. The only difference I made in the treatment was to confine them to bed, and apply poultices and counter-irritants. They both did well; one was running about at the end of twenty-four days, and the other at twenty-six days, free from cough, and the lungs perfectly resonant and free from signs of disease. One case was complicated with bronchitis, which was treated by warm air and the usual remedies. The insufflations were commenced on the seventh day, and at the end of twenty-one days she was perfectly convalescent.

I had one case, aged 11 months, which caused me much anxiety owing to its being accompanied with spasmodic croup. A calomel purge and chloral produced no benefit, but improvement was most marked on the application of boric acid. In six hours the attacks of croup had completely ceased, and the baby never seemed to suffer more than the catarrhal stage, and was completely well in seven days. In this case I should have had some doubt as to the correctness of my diagnosis had not a neighbour's child, who was constantly in the same room, and suffering from unmistakable whooping-cough, come under my observation.

I had two other cases which were exposed to the infection, and which presented febrile and catarrhal symptoms, but which resembled some of Dr. Guerder's in that the disease seemed to prove abortive. After two or three days' treatment by insufflation it subsided without the onset of the spasmodic stage. The remaining cases presented no special peculiarity. Eight were under treatment from fourteen to

twenty-one days, one for twenty-four days, two for twenty-six days, and one, in a delicate child with a careless mother, was five weeks.

I may add that I use pure boric acid, and do not dilute it with coffee or anything else. It is so little irritating when used by itself that the youngest baby does not object to it, and it is certainly cleaner in appearance. The coffee only makes a dirty-looking discharge from the nostril, while the pure acid does not cause any discharge, unless used in excess.

ACUTE RHEUMATIC PERITONITIS.

By WILLIAM ROBINSON, M.D. and M.S.(Dunelm), M.R.C.S.Eng., Stanhope.

Peritonitis occurring in acute rheumatism is an exceedingly rare affection, and has been chiefly described by French writers, hence the following brief report of a case may be of interest.

M. E. G., aged 17 years, tall, slender, and a twin, was seized with severe abdominal pain and vomiting on January 3rd, 1887. On January 5th I was called to see her, when I found her in bed, lying on her back, knees drawn up; severe pain in abdomen, increased on pressure, and excessive tenderness, especially of the hypogastric region; pulse 110, weak; temperature 99.4° F.; in fact, all the symptoms of acute peritonitis. A normal menstruation had ceased five days before the attack; there were no signs of renal or pelvic disease; the only history bearing on the case was that the patient had walked two miles in the severely cold night air two days before the attack. The usual instructions as to diet, rest in bed, external applications, and avoidance of aperients (which had been given by her mother at the onset) were given, and a mixture containing opium prescribed. During the first week the pain was kept in subjection by the opium, but the pulse remained frequent, the temperature rose to 102°-103°, and the inflammation extended to the whole of the peritoneum; the tongue was dry, red, small, and characteristic, and the breathing altogether costal. At the end of the first week severe pain paralysed the right knee, which became very tender, but not red or swollen; the temperature rose to 104°, signs of pericarditis developed, and sour-smelling acid sweats set in. After two days the right knee became free, but the left shoulder was attacked with acute pain, but without redness or swelling. In a few days again the left elbow followed suit. As the pericarditis developed, the abdominal symptoms subsided gradually, but dulness, loss of voice resonance and breath sounds became marked at the bases of both lungs (double pleurisy with effusion). The respirations were short, and 34 per minute. At the end of the second week the heart dulness had greatly increased, and extended from half an inch to the right of the sternum to half an inch to the left of the left nipple, where the heart impulse was felt (on a level with the nipple); in the second left intercostal space a well-marked friction fremitus and sound was perceptible during the whole time the pericarditis lasted, and here also an easily seen wave-like motion was visible, due to and synchronous with each cardiac systole (that this wave-like movement was not due to fluid effusion was clearly proved by the friction sound being audible only over the same area). On endeavouring one day to examine more in detail the back of the chest, the patient was quietly raised a little from the previously carefully maintained dorsal position, when hiccoughing, "catching of the breath," and fatal syncope almost occurred, and was only warded off by the speedy restoration to her former position and stimulants. From this time up to the fifth week gradual improvement took place; the patient was able to sit up in bed; the abdominal tenderness, tympanites, and increased heart dulness had almost gone, and the temperature and pulse had become normal, when, presumably from a slight error in diet, a relapse of the peritonitis occurred, and the pain returned for a time to her left shoulder; again she gradually recovered, and by the third week in March she could take an ordinary diet with impunity, walk out of doors, and had no shortness of breath. The heart dulness and apex beat were almost normal, but a systolic *bruit* remained. She is continuing to regain flesh and strength (April).

There can be little doubt but that this case was one of acute rheumatism, in which the visceral affections eclipsed those of the joints. The only other view that could be advanced is that the peritonitis was "idiopathic," and that the pleuræ and pericardium were affected by continuity of tissue through the lymph channels existing between the serous membranes and the diaphragm. There were never any signs of typhoid fever, and tubercle was out of the question. Paracentesis pericardii was not performed, because (1) the symptoms were never sufficiently alarming, (2) the effusion was regarded as rheumatic, and (3) the fluid gradually became absorbed.

THERAPEUTIC MEMORANDA.

PURE BENZOL IN WHOOPING-COUGH.

Entertaining a very strong opinion that benzol is very efficacious when given in suitable cases and at a proper period, it may be worth while to point out a mode of administration which overcomes the real difficulty in using it.

The fluid is so light that it is by no means easy to prescribe it in such a form as to cover the hot, pungent taste which it leaves in the mouth. Even where viscid solutions, such as starch or mucilage, are used, this acrid flavour remains, and it is apt, as Dr. Goodhart (*Student's Guide to Diseases of Children*) points out, to produce sickness. This result never occurs if the benzol is given in a viscid mixture, or if the dose is not too large. The dose which I have usually found sufficient is from three to five minims, but a smaller quantity produces a decided effect. For a child of 4 or 5 years of age two minims every two hours will suffice. The following will be found a convenient and not unpleasant formula: ℞ "Benzol puriss," (Hopkins and Williams) ♏ 32; glycer. pur., ℥iss; ol. menth. pip., ♏x; syr. mori., ℥ss; Misce. ℥j 2dâ quâque horâ sumenda.

The preparation of benzol is to be obtained from Messrs. Hopkins and Williams, 16, Cross Street, Hatton Garden. It is a very light and highly inflammable body.

The best time for beginning its use is after the acute stage is past; at least, this is the plan I have usually adopted, but it is not unlikely that in the form now devised it might be taken with advantage at an earlier period. The most notable points in which its beneficial action is displayed are the diminished expectoration, and the decrease in the spasmodic nature of the cough.

John Lowe, M.D.

Green Street, W.

STROPHANTHUS.

The following notes respecting the effect of strophanthus in two cases of valvular disease of the heart may be interesting.

Case I.—A woman, aged 36, suffers from mitral obstruction and regurgitation. She is subject to periodical attacks of cough and dyspnœa, accompanied by marked irregularity and feebleness of pulse. Sickness is also a prominent symptom, and there is slight œdema of the lower extremities. I have attended her on several occasions, and have always treated her with a mixture of iron and digitalis, which speedily relieves all her symptoms. During her last attack I tried the tincture of strophanthus, in five-minim doses, but beyond increasing the force of the cardiac impulse, and the quantity of urine voided, it had no effect on her symptoms, except to make the sickness worse. A return to the usual iron mixture soon gave her relief.

Case II.—A boy, aged 7, with aortic and mitral regurgitation, has attacks of angina pectoris, cough, dyspnœa, and general anasarca. Cardiac impulse is very violent, but not irregular. Urine scanty. Strophanthus was given in three-minim doses, thrice daily, and the effect was simply marvellous. The secretion of urine soon became abundant, cardiac impulse less violent, anginal attacks quite ceased, and in three weeks' time the dropsy had entirely disappeared. The drug was then discontinued, and now, three months afterwards, the child is better than at any period during the past three years.

Chatham. J. Holroyde, M.R.C.S., etc.

During the last few months I have been trying strophanthulus in cases of heart disease. My results at first were unfortunate, for it neither relieved the breathing nor did it check anasarca. My friend, Mr. H. E. Bateman, of York, told me that he had had similar results until he combined five-minim doses of strophanthulus with half-drachm doses of ether, when he had a wonderful recovery from heart disease and anasarca in a very aged man. I have tried his plan in a case of extreme dilatation of the heart with anasarca, and found it gave great relief to the breathing, though since I have had to treat the anasarca by drainage.

In a very bad case of double pneumonia, with heart failure, I combined strophanthus with an expectorant, and the case got rapidly worse, the respirations going up to 65, the pulse to 130, and the patient became very cyanotic. As a last resource I gave strophanthulus and ether only, with the result that the symptoms began to abate immediately, and he is now recovering. The preparation I have used is by Burroughs, Wellcome and Co., and I have been obliged to make it into a mixture, as my patients have not had enough intelligence to be trusted to prepare each dose as directed.

Collingham, Notts. Frank Broadbent, M.R.C.S.Eng.