mental and physical exertion to which he was daily and hourly subjected in the discharge of the duties of his calling.

CASE II. The head of a commercial firm in the City experienced suddenly an attack of cerebral congestion, and was in a state of insensibility when I first visited him, at 9 P.M. He had just returned home from a journey; and it was apparent that his symptoms arose from gastric derangement. Three ounces of brandy, diluted with an equal quantity of hot water, were ordered to be administered; vesication was applied between the scapulae; two grains of calomel, with four grains of rhubarb, were ordered to be given directly; and effervescing medicine every four hours, with an effervescing laxative in the morning. On my visit the following morning, sensibility was restored; the medicine had acted freely. Two ounces of brandy, with the same quantity of hot water, had been given twice in the night. In two or three days, this patient became convalescent.

In this case, like the former, the patient was in the habit of living generously, conducting the chief part of the travelling department, and taking moderately from one to two pints of ale, with a pint of wine, daily. Hence the rapid and safe convalescence he experienced, owing chiefly to the cause (gastric disturbance) having been promptly removed; the consequences subsiding in a few hours, with the assistance rendered by Art to the restorative processes of Nature.

CASE III. Several years since, I was requested to visit a case of hemiplegia. The patient, a female, aged about 48, of robust constitution, and somewhat corpulent, was in a very weak and exhausted condition. She represented herself to have been attacked with giddiness in the head and sudden loss of consciousness. A medical man was sent for, who immediately bled her, and the next day repeated the operation, and administered purgative medicines. No improvement taking place at the end of a week, and change of air having been proposed, she was removed a few miles, to the neighbourhood where I was first consulted. On examining her condition, I found her pulse not more than 50, and general coldness of the trunk and extremities. I ordered two ounces of brandy to be taken directly, with an equal quantity of hot water; and to be repeated every four hours. I also prescribed one grain of disulphate of quinine in a pill every four hours, with effervescing draughts, vesication to the spine, and beef-tea to be given frequently. On the appetite being restored (which occurred in forty-eight hours), the further exhibition of brandy was suspended. Two mutton chops were now given daily, with two or three pints of porter or stout. In seven or eight days, this patient entirely regained the use of the paralysed parts, and became speedily convalescent. She has since continued to enjoy uninterrupted health.

CASE IV. Within the last few months, I have had under my care four cases in dispensary practice where the auxiliary agency of diluted alcohol has materially contributed to the recovery of the sufferers. One was the case of a young man, aged 30, the subject of fever, who was discharged from the county hospital, and placed under my charge. On visiting him ten days since, I found him partially comatose; he could only be roused by shouting in his ears. He also had subsultus tendinum and picking of the bedclothes. Speedy vesication on the spine was induced by means of a camel's-hair brush dipped in the ammoniated solution of cantharides. An ounce of brandy, diluted with an equal quantity of cold water, was administered, and continued for several days, at periods varying from two or three to six hours. Sensibility was restored within forty-eight hours; and on the ninth day convalescence was established. He had taken nothing else but a little beef-tea since I had the charge of his case. On the day of his convalescence, he asked for a steak or mutton chop, the latter of which was readily conceded, and a half-pint of stout directed to be administered instead of the brandy. But for the exhibition of the brandy diluted, this patient would have sunk. I was told by the occupier of the house that "this patient was too far gone for me to be of any service to him", that he "was only sent home to die".

The three other cases were also cases of cerebral affection. Two were instances of insanity (melancholia), where the tonic plan of treatment, combined with a strictly regulated diet and the frequent use of small quantities of brandy (diluted), proved of great auxiliary service. Very moderate vesication was also pursued, and both were convalescent in three or four weeks.

The remaining case was one of hemiplegia, in a patient near 70, who had experienced the attack near six months. In his case, the hemiplegia was complete; and I found on visiting him, that he had no control or muscular power over either the left

upper or lower extremity, and was unable to stand. By a strict diet of a generous character, aided by the use of one or two pints of porter each day, and two ounces of brandy diluted, this patient recovered the entire use of his lower extremity in about four months, and his upper extremity is now gradually yielding to the combined effects of a tonic and generous diet; the whole upper extremity having become obedient to the will, excepting the hand, the fingers of which are day by day recovering their use of flexion and extension. The medical treatment was chiefly small doses of quinine, with one-twelfth of a grain of morphine.

GENERAL REMARKS. The inferences to be deduced from the detail of a very few of the cases which I have, as above, taken from my notebook, though very imperfectly given, go far to prove, I think, the efficacy of cordials as being powerful auxiliaries in the treatment of fevers, and of cerebral and nervous derangements. In fact, individuals such as children, as well as adults, the subjects of cerebral disturbance (the frequent accompaniment of remittent and continued fevers), are more safely and quickly restored to convalescence by the judicious exhibition of small quantities of wine, etc., from time to time. I have found in many cases of cerebral or spinal disturbance—especially in the Protean forms of spinal irritation, attended with severe local pain, usually of a periodical character—that these auxiliaries very materially contribute to assist the medical and dietetic treatment. Thus, as I stated at the commencement of my first paper, is substantiated the correctness of the late Dr. Todd's conclusion that the judicious and timely administration of alcohol, either in the form of diluted spirit, wine, or malt liquors, constitutes a nutritious aliment to the cerebral and spinal systems, when unduly exhausted, appearing to restore the balance of vital energy expended in the progress of asthenic diseases, where, without the auxiliary agency of cordials, nothing short of an unfavourable termination can be the result. Even when organic disease is present, the administration of cordials produces usually considerable alleviation of suffering and pain. In many incurable diseases, such as phthisis, cancer, etc., how great is the relief experienced by suffering patients from taking a moderate allowance of cordials! These sustain and support the irritable and exhausted condition of the nervous system, and thus gently smooth the passage to the grave.

SCROFULOUS DISEASES OF THE EXTERNAL LYMPHATIC GLANDS:

THEIR NATURE, VARIETY, AND TREATMENT.

By P. C. PRICE, Esq., Surgeon to the Great Northern Hospital; the Metropolitan Infirmary for Scrofulous Children at Margate; etc.

II.—CHRONIC ENLARGEMENTS OF THE EXTERNAL LYMPHATIC GLANDS, FROM HYPERTROPHY OF STRUCTURE, INDEPENDENT OF INFLAMMATORY ACTION.

[Concluded from page 703.]

General Treatment. In all diseases in which complication exists, prescribed forms of treatment must be more or less modified; and this observation is particularly relevant as regards the therapeutical management of this special glandular affection. It has been stated that, in all probability, in the majority of cases in which this derangement occurs, it obtains as a result of certain causes which have an extra lymphatic origin; and, therefore, before any hopeful treatment can be adopted, it is highly advisable that they should, if possible, be recognised. What these causes may be, it is often difficult to determine; but frequently a decided departure from health will point to some impairment of the digestive, secretive, or absorptive functions. It must be allowed, I think, that this kind of glandular affection is generally met with in each of the divisions which so commonly admit the development of strumous disease; viz., the sanguine, phlegmatic, and lymphatic; so that if in certain instances it appears to be but slightly, if at all, associated with well developed scrofula, still it must be ordinarily considered as in some way or other connected with this peculiar diathesis. Believing that the simpler forms of the affection, when appearing in the external glands, although not appreciable in those of the mesentery and other internal structures, are dependent on systemic causes, I usually commence the treatment by regulating the proper action of the various viscera. This is

best accomplished, when the *primæ viæ* are at fault, by unloading the bowels, and maintaining their proper action. Constipation is a very frequent accompaniment of glandular swellings, and it is astonishing to see how an alterative course of medicines is attended with almost immediate good effect, provided the disease has not been too long established. Mr. Abernethy was in the habit of treating these cases with calomel; but with what special views he used this powerful medicine does not clearly appear even from his own description. Although as a rule I do not resort to the administration of calomel in large and continuous doses, still there is no doubt that mild mercurial preparations are often of value, as the liver is generally torpid in its functions. For reasons already stated, I prefer small and repeated exhibitions of *hydrargyrum cum cretâ* in combination with compound rhubarb powder, or some alternative. To improve the tone of the digestive and assimilative powers is all important; for, as long as these remain neglected, the proper action of the various organs cannot take place. Mineral acids in combination with bark, quinine, and iron, are the most available adjuncts for restoring a healthy tone. For the more immediate treatment—reduction—of the disease, iodine, bromine, and cod-liver oil have during the past quarter of a century taken the first rank; and, if cure is to be obtained, perhaps no specific remedies are more valuable. Iodine and bromine may be exhibited in one or more of the forms already described, or in any of those which will meet with further consideration. When speaking of the action of iodine on indurated glands from vascular derangement, it was stated that the administration of the drug was not always so rapid or certain in its effects as could be wished for; and that not unfrequently disappointment followed even its most pertinacious use. This remark is even more applicable to the treatment by iodine of this form of glandular mischief than the last described; for considerable experience has proved to me that even its very extended exhibition is oftentimes attended with failure. Various reasons may be assigned for this want of success; but, whatever may be the correct one, it is more than probable that in the majority of cases of confirmed mischief, a hidden influence is at fault in keeping up the irritation, over which iodine has little or no control. In one instance, in particular, in which the constitution was saturated with iodine, little or no amendment or reduction in the gland swellings resulted. It may be asked—this important agent being oftentimes incapable of inducing resolution, or even arresting the further progress of the disease—what means should be adopted to procure amendment and cure? I fear even the most sanguine and experienced practitioner will readily admit that many cases, in which this form of glandular affection exists, are not really amenable to the treatment of any fixed medicinal means, and that the good to be expected is chiefly derivable from change of climate, and from the removal of those unwholesome influences to which the subject of the affection may be exposed. Rapid amendment in such cases, occurring especially among the poor, by this plan of rational treatment is frequently most marked. Much has been said and written on the direct advantage of sea-air and sea-bathing; and, while many excellent writers have been far too laudatory in their recommendation of these means, others have not sufficiently noticed the benefits which their employment often affords. Ample observation among both private and hospital patients at Margate, has assured me that immediate advantage is very frequently to be gained by a sea side residence, and a free recourse to sea-bathing, provided it be not contraindicated by reason of certain complications of constitution and disease. If with these means treatment by iodine, cod-liver oil, and tonics is added, I believe marked amendment and cure will oftentimes be obtained when but little hope was entertained from either ere change of climate was obtained. But, although a residence by the sea is often advantageous in the management of cases dependent on this kind of glandular disturbance, still it often happens that a less bracing and inland locality is more suitable. Individual cases must be managed according to circumstances; but, as a rule, I believe, a change of climate and residence is often expedient, and even necessary, when medicinal means solely employed have failed. It has already been hinted, that this form of glandular affection, when limited to the external lymphatic ganglia, after arriving at a certain stage and becoming permanent, is frequently unaccompanied with any strongly marked evidences of disturbance of the general health. In fact, it is not rare to see individual cases in which not the slightest effect is produced on the system. I have lately been interested in a case of this description, in which the glandular enlargement, especially of the cervical ganglia, has existed for years, and no perceptible effect

has been produced on the constitution and vigour of the patient. The case has been under notice for a considerable period, and a large amount of iodine has been taken without having exercised any or little effect on the glandular system. This form of hypertrophy is more permanent when once established than other chronic enlargements; and frequently no perceptible changes are induced by the variations of seasons and temperatures. But, although this condition of hypertrophy is oftentimes comparatively harmless, still it is apt to progress to such an extent as to cause not only inconvenience but danger from mechanical causes. Moreover, fear is to be entertained that any subsequent complication may give rise to still more important lesions; for it has been noticed that more marked scrofulous and true tuberculous mischief is apt to arise, especially if the strumous diathesis be strongly portrayed: and it is on these grounds, if not on others, that such medicinal and general treatment should be adopted as is most likely not only to cure or amend the affection, but to prevent the occurrence of more distressing and dangerous complications.

Local Treatment. Although local treatment by means of certain applications has been highly extolled by many observant practitioners, still, I believe that a due consideration of the pathological changes that have induced an alteration in the condition of the affected glandular apparatus will at once show that much advantage is not, as a rule, to be hoped for from mere mechanical and therapeutical applications. When such means are, however, employed, either solely or with internally administered medicines, it is customary to adopt the use of those agents which have already been and will presently be more fully considered; viz., blistering; paintings with iodine, bromine, and their salts in the forms of tinctures, etc.; frictions with various powders, ointments, and oils; and the constant application of various solutions containing mineral salts, etc. But much harm instead of good may arise by a too pertinacious use of one or more of these various means. I have not unfrequently seen cuticular and cellular mischief occasioned by a too persistent application of iodine; while little or no appreciable advantage has been derived, so far as diminution in the glandular derangement was concerned. When enlargement is dependent on plastic material, doubtless iodine, etc., topically applied, is of some value; but, judging from my own experience, I cannot recommend, with any great hope of success, the treatment of this special form of glandular hypertrophy by local discentients, absorptives, etc. Sometimes diminution in size of implicated glands of this nature does ensue from repeated and long continued topical applications of iodine, mercury, etc.; but then, I believe, the general system has become more or less affected through absorption, as I have seen verified on more than one occasion.

Direct surgical treatment is, however, sometimes needed, as it may become expedient to remove one or more hypertrophied glands, which by reason of accumulation in size occasion not only deformity and inconvenience, but positive danger. Caustics and the knife are the two chief means in the hands of the surgeon to effect reduction or absolute removal. The application of caustics for such purpose has met with some consideration in previous pages, and I have only to reiterate what was then stated. Although a resort to caustics is in general, I consider, not only erroneous, but decidedly bad practice, still there are occasions when no other agent will prove of like advantage. The way in which caustics act when employed as a means of destruction, is by causing inflammation and suppuration of the tissues with which they are in contact. Such changes are more or less rapidly induced, in proportion to the agent employed; while the disturbance generated is in relation to the extent of local destruction and constitutional temperament. I have frequently known very serious results follow this plan of treatment, and I have rarely put it in practice for the removal of this form of glandular mischief.

When it is really expedient and necessary to take away one or more hypertrophied glands, the knife will be found the most certain, least painful, and efficient means at the disposal of the practical surgeon. Care must, however, be taken to select only such cases as are well marked for operative interference. When the gland-tumours are situated in close relation to large arterial and venous trunks, and nerves, extra judgment is required in advising and performing an operation; for experience has fully shewn that danger is apt to arise therefrom. An example of injudicious interference has been current since the days of Celsus; and there are few surgeons who cannot recall to recollection similar instances of bad practice. When circumstances are favourable, and removal well and carefully executed, success will, in general, attend direct and judicious surgical interference; for a slight scar will by the majority of patients, espe-

cially by those who take pride in the advantages of personal appearance, be deemed of less moment than an unsightly and irreducible gland swelling.

Transactions of Branches.

METROPOLITAN COUNTIES BRANCH.

ON SUBCUTANEOUS OPIATE INJECTIONS.

By THOMAS OGIER WARD, M.D., Winkfield.

[Communicated July 17th, 1860.]

IN a former letter, published in the JOURNAL of May 26th, I mentioned the relief afforded by the subcutaneous injection of morphine in a case of colica pictonum; and, having now used it in many varieties of painful affections, with unfailling success, as far as the relief of pain was concerned, I feel warranted in urging its more extensive use, especially as, with ordinary caution, it is not attended with any danger to life. The formula I generally use is one grain of morphine to a drachm of water; and of this I inject over the painful part from five to fifteen minims.

CASE I. Rheumatic paralysis and wasting of the muscles of the shoulder and scapula in a middle aged man, with severe pain in the scapula and other muscles of the affected side of the neck, came on suddenly in the night, without any assignable cause. When first seen, six months after the attack, he could not raise the arm higher than 45°; but, after three months treatment with blisters, stimulating liniments, acupuncture, Pulvermacher's chain, and exercise with a forge-bellows, etc., the muscles began to recover their size, and he could extend his arm horizontally. As, however, the pain in the side of the neck continued unabated, I injected ten minims of the solution of morphine, equal to one-fourth of a grain. In ten minutes, the pain had ceased; and, although it returned in a day or two, yet it caused so little inconvenience that in a few days he was able to resume his work. The only general effect he perceived from the injection was, that he felt "queer", as if he were half drunk.

CASE II. This man first exhibited a variety of anomalous symptoms, the chief being acute pain in the left side, in the region of the heart, with cough and occasional hæmoptysis, with no physical signs of chest-disease, but with extensive dulness on percussion, extending across to the right hypochondrium, whence it had originated. He afterwards passed, at different times, copious bloody and purulent stools, containing quantities of "skins" (Query, Hydatids?). After this, though weakened, he always felt better. His cough, however, continued troublesome, and aggravated extremely a rheumatic headache which had long troubled him, making his scalp sore to the touch. As no medicine I gave him had any effect on the pain, I used the same injection as in the former case, and with exactly the same results; the pain subsided in about ten minutes, but he felt very "queer" as he walked home. The discharges from the bowels have quite ceased, and he now is able to do light field-work.

CASE III. This was the case of colica pictonum already published in the JOURNAL of May 26th.

CASE IV. This was a case of acute rheumatic pain in the shoulder and down the front of the arm to the elbow, with swelling and intense pain; so that the patient, a middle aged man, had had no sleep for two or three nights. The skin was red and hot over the biceps, though this might have been caused by a bag of hot salt he had applied, which had given him relief during the night. I injected the skin over the biceps at the most painful part; and in ten minutes he could lay his hand on his head, and dress himself. The pain had entirely subsided, and did not return for two days; and then it was so much diminished that he was contented to recur to the hot salt for relief.

CASE V. This patient, a married woman, aged 20, epileptic from fright for two years, had had nine fits in twenty-four hours, which left her so exhausted that she had kept her bed above a week, when the menses came on with such extreme pain that her mother got alarmed and sent for me. I found her groaning and rolling about her bed with pain seated about two inches below the umbilicus, where there was great tenderness on pressure. Fearing a recurrence of the fits, I injected

a quarter of a grain of morphine; and, having waited a quarter of an hour without any abatement of the pain, I repeated the injection with one-third of a grain; and not being able to wait for the result, I desired her mother to send for some pills in the evening (camphor and hyoscyamus), if the pain continued. No one called for the pills; and the next day I was informed that the pain ceased, and she fell asleep immediately after I quitted the house, about 3 o'clock, P.M., and did not awake till 8 A.M. the next day, quite free from pain. It is worth remark, that though the fits usually returned every fortnight, they did not recur till a day over the three weeks, and then only once; and, upon the whole, I consider her improved in health since the operation.

CASE VI. This is a woman living next door to Case IV, who, besides suffering from menorrhagia and renal calculus, is never free from rheumatic pains in some part. On this occasion, the pain was over the back of the head, where I injected one-fourth of a grain of morphine under the scalp. The pain was speedily allayed, as in the former cases; but the patient suffered from nausea and vomiting the next day, though the pain did not recur for some days, and then with less violence; nor has it ever been as severe as before the operation.

CASE VII. The next operation was performed upon myself, for lumbago, or rather pain in the right kidney, though not attended with any passage of gravel or disturbance of the urine. The pain was of a dull aching character, with occasional paroxysms, and usually lasting some hours. As the attack occurred at bedtime, I knew I should get no sleep till it was allayed; and therefore I used a strong injection of above half a grain of morphine. The pain ceased in seven minutes, and I soon fell asleep; but I frequently awoke, from teasing dreams of the same subject continually recurring. On rising in the morning, I was pale, so giddy that I could not walk straight, and had a slight nausea, which ceased when I was quiet, but recurred on making exertion; so that I vomited three times in the course of the day. These feelings ceased in the evening, and I went to bed quite well, and slept through the night.

CASE VIII. Ten days afterwards, I had another attack; and, warned by the previous effect, I only used one-sixth of a grain of morphine. The relief was not so speedy, not coming on for a quarter of an hour; but it was equally effectual as the larger dose.

CASE IX. This was a case of violent toothache, from inflammation and abscess round the stump of a molar tooth, which I was asked to remove, but the patient's courage failed her. Having tried in vain creasote and chloroform, I injected the loose tissue below the gum with one-sixth of a grain of morphine, which soon moderated, though it did not remove the pain entirely; but the patient slept well that night. The next day, she consented to have the tooth removed, under chloroform; but the attempt was ineffectual, owing to her resistance; and when she came to herself, she refused to undergo a second trial, but begged to have the injection repeated. This was done about 12½ A.M.; but she did not lose the pain till 7 P.M. The day following, almost all appearance of inflammation was gone, and she was quite free from pain.

REMARKS. From my experience in these nine, or rather ten, cases of operation, I am induced to believe that instances of dangerous results from its use may be avoided by a careful regulation of the dose of injection, even in cases of peculiar susceptibility to opiates, particularly if the dose be divided into two or three operations, with intervals of fifteen or twenty minutes, which is ample time to develop the anodyne influence of the remedy, even though its complete effect in removing pain may not have been shown by that time. Perhaps the power of absorption varies in different parts of the areolar tissue; for in Case IX, in which the full effect was delayed for some hours, the swelling caused by the injection had not subsided twenty-four hours after the second operation. It is an established fact, that the rectum absorbs much more rapidly than the vagina; and it is not improbable that, for security against noxious substances taken into the mouth, absorption may be slower in the areolar tissue around it than in the other apertures of the body.

Another conclusion may, I think, be drawn from these cases; viz., that pain of any kind, neuralgic or inflammatory, may be relieved by subcutaneous injections; and, as we can only explain the more rapid action of opiates administered in this manner by their immediate absorption into the circulation, it follows, as a necessary corollary, that in violent pain from acute inflammation, we need not wait to subdue it by antiphlogistic remedies, but proceed at once to the use of anodynes.