

perience, and whose characters as anatomists, entitle them to be considered as authorities on all questions relating to the human form, I refer to the works of Riolan, Haller, Winslow, Van Swieten, and Portal.

'Portal has entered at considerable length into the inquiry: among other facts, he states that the muscles of the back are larger, redder, and stronger, in women who have not worn stays, than in those who have used them. He says, indeed, that it is scarcely possible to demonstrate the muscles of the back in those who have worn stays, or any similar contrivances, to support the spine.' (p. 190.)

Mr Shaw trusts the cure principally to exercise, so contrived as to call into action those muscles which have a tendency to counteract the distortion. Experience has taught him that the only effectual way of treating those cases, is by calling into operation the natural powers of the diseased part, which, by disease and inactivity, have been suffered to languish and decay. It is thus that a blow is struck at the root of the evil, and, by imitating nature, we are taught to cure her aberrations.

A great variety of means have been devised by him to execute this plan: many of them are exceedingly ingenious, but, without the assistance of his diagrams, we should despair of giving a correct idea of them to our readers. We must therefore refer them to the work itself, where they will find details sufficient to enable them both to understand and to apply them. The plates in illustration, reflect high credit, both on the judgment of the author, and the skill of the artist.—*Lond. Med. & Phys. Jour. Jan. 1824.*

Some Observations on the utility of Opium, in certain inflammatory Disorders. By JOHN ARMSTRONG, M. D., Lecturer on the Principles and Practice of Physic*:—There is always a degree of genuine satisfaction in perusing the observations of the author before us on any subject connected with medical science. His opinions always bear so much the stamp of accurate observation, that they irresistibly command our fullest confidence; and, although on many occasions, as in the communication before us, the principles inculcated are by no means original, and the means recommended to fulfil those principles in no respect novel, yet there is a degree of philosophical concatenation preserved throughout the whole subject, which renders it not only in the highest degree interesting, but throws over the *ensemble* an air of important originality.

* Transactions of the Associated Apothecaries, and Surgeon Apothecaries of England and Wales.

The practice of giving large doses of opium in visceral and other inflammations, as is well known to most of our readers, although Dr ARMSTRONG scarcely seems to be aware of it, has been long recommended by various individuals of the first talent and observation; a practice which we ourselves, after active depletion has been premised, have found singularly beneficial. The following practical observations, by Dr ARMSTRONG, on the treatment of acute inflammation of the peritoneal coat of the stomach or bowels, and of acute peritonitis and hysteritis, are in the highest degree important; and although they occupy very considerable space, we are convinced our readers will hold us excused, when they consider the value of the matter:—

‘I always make a point,’ says Dr A., ‘of seeing the patient bled, in the first stage, to complete relaxation, to approaching syncope, whatever may be the quantity of blood necessary to produce that effect; for it is to the effect, and not to the quantity, which we must look for relief in such formidable cases. As soon as ever the patient recovers from the faintness, three grains at least of good opium, in the form of a *soft* pill, are given, and quietness is strictly enjoined, that, if possible, sleep may be obtained. In some instances I have ordered a less quantity of the opium in a solid form, but have added sufficient of the tincture to make the dose equal. This method is preferable in highly irritable habits, because the sedative influence of the opium is thus more speedily procured. The effects of opium thus administered, are to prevent a subsequent increase in the force or frequency of the heart’s action, and a return of the abdominal pain, while it induces a tendency to quiet sleep, and copious perspiration over the whole surface. In many instances, this simple procedure will remove the inflammation at once, nothing being afterwards necessary, when the patient awakes, but spare diet, absolute rest and quietness, with an occasional mild laxative. But on all occasions, if possible, I visit the patient about three or four hours after the administration of the opium, and if there be pain on pressure in any part of the abdomen, with a hot skin, and quick jerky pulse, I order the patient, in my presence, to be promptly bled again in the same decisive manner as before. Some physicians commit a great, a fatal mistake in the treatment of acute inflammations, by dictating on paper, that a certain, a determined quantity of blood must be taken away, and then they walk about their business, as if all were done, that ought to have been done. What an absurdity, what a strange violation of duty, does this conduct involve! In the first place, a great deal of time is commonly thus lost, which is so precious in

all acute inflammations ; in the second, the determinate quantity of blood, set automatically down, may have no effect in removing the inflammation ; and I repeat, it is solely upon the *effect* produced that the benefit of blood-letting depends, and therefore the effect should always be witnessed by the physician. It is the only safe guide. After this second abstraction of blood, carried again to complete relaxation, I generally prescribe about two grains of opium with three or four grains of calomel, exhibited in the form of a pill, as the faintness disappears. The patient is again left in perfect quietness, and refreshing sleep, with free perspiration, most frequently succeeds. A third venesection is rarely requisite, but if, after the expiration of five or six hours from the second, pain and fever still exists, the operation should again be performed as before, and one grain of opium with two or three grains of calomel given almost immediately afterwards ; while half a grain of the former, with two grains of the latter, may be repeated every four hours till sleep and general perspiration be induced. It is repeatedly observed in my works, and the observation was made long before their appearance, that the specific effects of mercury are easily procured when large quantities of blood are abstracted under its administration. For this reason, the calomel should be given with proportionate care, whenever copious and repeated blood-letting becomes necessary.

‘When the cure has been left to my own management, I have never found it necessary to order blood-letting more than a third time, in the most severe examples of acute inflammation ; though now and then it has been deemed expedient to apply some leeches to the abdomen, in order to remove slight vestiges of inflammatory action.

‘It may be asked by some, are no purgatives to be employed in the mean time—are the patient’s bowels to remain torpid under an attack of acute inflammation ? In speaking of peritoneal enteritis, the late Dr Saunders used to observe emphatically, in his lectures, that the best way to open the bowels is, by the lancet. In this remark I cordially concur. One of the greatest and most frequent errors in the treatment of peritoneal enteritis, is the attempt to force a passage by strong cathartics, the artillery to which so many trust, under the delusive idea, that obstruction of the bowels is the main cause of all the mischief. Now, in such cases, constipation is not the cause, but the effect, of the inflammation, and the first and last object is to remove that inflammation ; whereas abstractedly prescribing for the constipation, actually exhibiting drastic drugs in abundance, greatly aggravates the inflammation, indeed generally destroys all chance of recovery. When blood-letting is employed in the manner already advised,

the bowels are very often opened immediately after the operation; or, if that should not happen then, the full doses of opium afterwards taken either act as aperients, or so favour the operation of aperients that the mildest kind will mostly suffice. But when inflammation of the bowels takes place where the colon is overloaded, considerable advantage will be derived from large clysters of tepid water, which remove the fæces accumulated, and tend to lessen the irritability of the stomach; though the latter can seldom be entirely overcome but by decisive venesection, a measure always imperatively required, so long as any thing like vomiting and pain shall continue in the first stage.

‘When the peritonæum is alone acutely inflamed, when the pain is diffused over the belly without nausea, retching, or vomiting on the first attack, copious venesection, and full doses of opium have done admirably well; yet, in that case, there is less hazard in prescribing purgatives at an early period than in enteritis, because, the seat of the inflammation being somewhat remote, the bowels are not liable to be thereby dangerously irritated. Inflammation, however, is not always, as nosological writers would have us believe, confined to certain parts and patches of the body; for inflammation of what is called the peritonæum proper, not unfrequently extends to that portion of the membrane which is reflected over the intestines. This extension of inflammation is inferred from the diffused pain of the abdomen being accompanied by nausea, retching, or vomiting at the onset, and by a more hurried respiration, and a smaller, quicker pulse than are present in what has been denominated pure peritonitis. In such attacks, purgatives should not be exhibited till the reduction of the inflammation by bleeding and opium; unless indeed the bowels be loaded at the time; and then large injections of tepid water may be employed to evacuate the contents of the colon.’

‘Large and repeated doses of opium tend to lock up the secretion of the liver, and therefore, in acute hepatitis, they should be rarely repeated beyond the second time, being always premised by venesection, and always conjoined with calomel. Moreover, saline purgatives should be freely employed from the beginning, and if any traces of inflammation should be left, in despite of active evacuations, the mouth ought to be affected by mercurials. A similar plan may be pursued in common peritonitis and nephritis. In the first and subsequent editions of the *Illustrations of Typhus and other febrile Diseases*, a striking case of the latter is detailed, in which full doses of opium united with calomel, succeeded even when copious venesection had failed; and I may here add, that I have since witnessed some cases of inflammation of the bowels, where full doses of opium finally effected the

cure, after bleeding and purging had completely disappointed my expectations. So great indeed is my confidence in full doses of opium in peritoneal enteritis, that if compelled to say, supposing myself the subject of the disorder, whether I would exclusively rely upon them solely, or upon blood letting solely, I should certainly fix upon the former; at the same time I should like to have the simultaneous influence of both remedies, being convinced, that they are far more serviceable combinedly, than separately employed.'

'On some occasions, for example, where a great quantity of blood has been lost in highly irritable habits, I have given larger doses of opium than already stated after venesection, never beyond five grains of the powder, however, nor a drachm of the tincture at once. Owing to a mistake of an attendant, six grains of opium were taken in three hours, but with the most beneficial effects. The subject of this case had been bled the first time about noon for puerperal fever accompanied by uterine and peritoneal inflammation, which was suspended by the operation for some hours, when being again kindled up, she was bled a second time about midnight. The inflammation was then apparently once more suspended, but it returned in the night, and she was bled a third time about six o'clock in the morning, with the same benefit as before. From what had previously taken place, it was suspected that the inflammation would be renewed by that increase of the heart's action which had followed each former blood-letting, and I therefore remained with the patient to ascertain whether or not this would be the fact. In rather less than an hour, the pulse became excessive quick, and the lady complained much of abdominal pain. At this period, three grains of opium were administered, and, by mistake, one grain at eight, one at nine, and another at ten o'clock. She fell into a tranquil sleep, and awakening convalescent, had no return of inflammation. This case may show how the inflammation arises after blood-letting, and how efficacious opium is in arresting its course; though it ought to be remembered, that it is better to prescribe the opium immediately after bleeding, in order to prevent any occurrence of actual inflammation. Another patient, whose case I formerly published, and who was apparently sinking under an abdominal inflammation which had not yielded to copious bleeding and purging, took a drachm, and three hours afterwards, half a drachm of the tincture of opium. He fell into a tranquil sleep, attended by a copious perspiration, and a greatly reduced pulse. From that time he recovered rapidly.

'In some instances, where all signs of abdominal inflammation have disappeared, the pulse continues considerably quicker, and

the skin rather hotter than natural, for a few days, constituting what I have elsewhere designated a simple fever. So long as this form of fever shall exist, the patient must be kept in bed, the diet must be spare, the bowels must be daily opened, and an opiate administered at bed-time. This plan will generally remove the simple fever, provided the temperature of the apartment be properly regulated; but when it does not, small doses of digitalis, repeatedly but cautiously given, till the pulse be reduced, and then withdrawn, will often prove useful auxiliaries to the other means. The Italians appear to be very partial to the employment of such medicines as digitalis, prussic acid, and tartarized antimony, in the beginning of acute inflammations; but my own experience of their great uncertainty, at that period, has led me to discard them from my practice, for time lost then is generally fatal to the sick, particularly in highly acute inflammations of the abdominal viscera. The great advantage of opium over digitalis and similar drugs is, that its effects are rapidly and uniformly obtained after blood letting; a fact which ought never to be forgotten in the treatment of abdominal inflammations.'—p. 317.

We are glad to observe Dr Armstrong state, that although in the country his success was considerable in what is called *puerperal fever*, yet under the same treatment in London, namely, under bleeding and purging, he is fully persuaded that a great many patients would have been lost. This is precisely our own feeling, and we have repeatedly endeavoured to shew that the puerperal fever of the London females is not that highly inflammatory disorder, or in other words, that it does not bear such active depletion as that, which has been described by various country practitioners, whose works have been, and still are, considered too much as the guiding stars of many practitioners. As opium has a specific effect on the vessels of the head, Dr Armstrong considers that great care is necessary in its exhibition where the brain is affected. It sometimes happens, however, that the cerebral inflammation being removed, a state of general irritation supervenes, marked by a small, quick, tremulous, pulse, a hurried, anxious respiration, with extreme restlessness; and although the patient complains of lightness in the head, yet he seldom has any pain there. Under such circumstances, the author thinks, a full opiate may often be given with great benefit, if the tongue be moist. A similar condition, he observes, not unfrequently arises in the second stage of acute abdominal inflammations; but, in such cases, pain may generally be detected on pressure, and the abdomen is more tense and round than natural. Here too, he is of opinion, if the tongue be moist, that full doses of opium will sometimes save life, when no other measure affords

the least hope, but it is only in 'some cases,' that it will succeed at such an advanced stage. Whether it be, however, in the first or second stage, so far as the author's observation has extended, the opium will not be beneficial in acute inflammations, unless the tongue be moist at the period of its exhibition; and therefore in specific fevers, such as typhus, where the tongue is dried and glazed, it always does harm, even where abdominal inflammation is present. The only cases where he has known opium beneficial whilst the tongue was dry, were those which had been preceded by copious hemorrhage, and in many of these it apparently saved the patient by allaying the existing irritation, and preventing the occurrence of that violent reaction of the heart, by which the hemorrhage is so liable to be renewed.

In several cases of acute inflammation of the pericardium, of the pleura, and of the substance of the lungs, the author has tried large doses of opium after copious venesection, with similar benefit as in the acute abdominal inflammation; but it is a practice which he does not recommend in inflammation of the mucous membrane of the bronchia, an affection which he considers to require, in many instances, the greatest circumspection as to blood-letting, and in which those measures which act simultaneously on the bowels and on the skin are singularly useful. Where the heat on the surface is universally high in bronchitis, and the pulse at the same time expanded and resisting, he has found moderate venesection very serviceable; but when the heat is subdued, and the pulse small and compressible, he has generally avoided it altogether, and trusted to the beforementioned means, with an antiphlogistic diet, and a regulated temperature.

Acute inflammation of the mucous membrane of the small or large intestines, Dr Armstrong considers to be by no means so common as acute inflammation of the peritoneal covering, except in certain epidemic constitutions; but when attacks of this form exist in the villous lining, copious blood-letting, so far as he has observed, followed up by full doses of opium, will generally cut short the inflammation at once, or reduce it to a sub-acute form, which will yield soon afterwards to milder measures. Sub-acute inflammation of the mucous membrane, especially of that portion which invests the small intestines, is exceedingly common as an original affection in this country, both among children and adults. It is generally denoted by an obscure pain in some part of the abdomen increased under pressure, and accompanied by a quick soft pulse, a hottish skin, a slightly furred tongue remarkably red at the tip, and a short way thence round the edges; whilst the stools, from an increased mixture of mucus, most frequently have an oleaginous sort of consistence, and are somewhat

darker and more offensive than natural. In the London Fever Hospital, Dr A. had a great many opportunities of showing the great efficacy of small or moderate doses of calomel conjoined with a few grains of rhubarb, and assisted by a little cold-drawn castor oil.

'The French pathologists,' says Dr Armstrong, 'have overlooked the general connexion which a disordered state of the liver has with sub-acute inflammation of the mucous membrane of the intestines. Wherever this connexion exists, small or moderate doses of calomel, united with mild laxatives, will be found highly useful, seemingly by gently dislodging the morbid accumulations in the bowels, and particularly by increasing a flow of bile, from which, probably, the blood finds a readier access through the liver, and thus influences the circulation of the splenic, the superior and inferior mesenteric veins, and their ramifications. In all cases, however, of this complicated nature, I have applied leeches to the abdomen, and repeated them as long as there was any pain on pressure; and experience has taught me that they may be employed preferably to general blood-letting in most sub-acute inflammations of the mucous membrane of the bowels. In such examples, the blandest and sparest diet is necessary; for any deviation in that respect is apt to maintain the inflammation, in defiance of the best remedies. The more we attend to minutiae in the general management, which involves diet, temperature, quietude, and other points, the more shall we be convinced of their vast importance in determining the results of our practice. In fevers which proceed from peculiar causes, such as malaria, and the specific contagions, sub-acute inflammation of the mucous membrane of the small intestines, particularly of the lower portion of the ileum, is by no means uncommon; but, as in the acute forms of such inflammation, it may be laid down as an axiom, that opium is prejudicial, while the tongue continues dry. Besides, in such cases, the brain and bronchial lining are often sub-acutely inflamed at the same time, a combination which contra-indicates the administration of this medicine.'

This excellent practical communication is concluded by some observations, on the propriety of banishing all *à priori* suppositions, if we wish to arrive at any thing like just principles to guide us in the application of remedies, and to minutely note, not only all the circumstances under which any particular remedy is given, but all the effects which it produces, as, 'the same remedy produces such different effects under different circumstances, that it might be regarded, practically at least, as a different agent, so powerful is the modifying influence of special conditions, of the system.'

The general effect of opium under small doses has been universally allowed to be stimulating, whilst, under large, it has as commonly been thought sedative. The application of these axioms however to practice has perhaps never been so philosophically adopted, or so ably elucidated, as by the author before us.—*Lond. Med. Intelligencer, Nov. 1823.*

DR HELLER has made a series of experiments on *prussic acid*,* the results of which are very different from those of his countryman, Magendie, having entirely failed in his attempts to cure pulmonary consumption by its means; notwithstanding that he has carried the dose to the extent of fifty or sixty drops of the medicated acid, (that is to say, from twelve to fifteen drops of the pure acid,) in twenty-four hours. In asthma and hooping-cough he has found it of service: with regard to this last complaint, his experience seems to justify the commendations bestowed upon it by Dr Granville. Dr Heller's words are—'I effected more in hooping-cough than in all the other diseases of the chest of which I have yet spoken; that is to say, a cure, which (if I may be allowed the expression) was complete.' He likewise regards it as efficacious in hæmoptysis: but the most remarkable and important of his experiments upon this subject relate to its employment in diseases of the heart. He informs us, that he was induced to undertake these from observing the facility with which prussic acid abolished the contraction of the heart, in animals which were submitted to experiment. He states that he has met with six examples of persons affected with aneurism of the heart, in whom he has been enabled, by means of this acid, to diminish the force of the palpitations, by weakening the contractions, and by moderating the flow of blood towards the organ. Taken, at first, in doses of ten drops in twenty-four hours, this medicine has been carried to the extent of above sixty drops, not only without inconvenience, but with the effect of producing a marked improvement, after other remedies had failed. In three of the patients, the aneurism had already existed for many years, and had acquired a force and power which subjected the life of the patient to constant danger; the medicine retarded but little the fatal termination, but it had the great advantage of moderating the action of the circulating system, and thus gave relief to the respiration. It appears, from the statement of Dr Heller, that these aneurisms had been previously

* *Revue Medicale*, August and September.