

is either compressed (as in the case of synovitis, bursitis, or abscess), or pulled upon (as in boil, wound, &c.) The mere cessation of this movement not only allows the patient to get about painlessly within certain limits, but, by ceasing to aggravate, permits the resolution of, the inflammation. The abscess may, of course, require incision or aspiration, and the same is true of the serous fluids; in fact, much time is often saved in synovitis, and always in bursitis, by aspirating at once *after fixing the joint*; while in some cases it is indispensable. But I am quite prepared to admit that some of my cases could possibly have got well without my interference; so with anybody else, Mr. Keetley included, as, for example, most probably in the case referred to at the end of his letter on March 1st. The obvious existence of such cases is one source of the prevailing fallacies which attribute recovery to some one or more useless, but harmless, devices, that hopelessly fail in cases of more importance, such as the obstinately chronic or painfully acute. The essentials of treatment I have learnt from the important cases, which respond with great precision to its proper employment. The same means, though less imperative, are always advantageous, even in minor instances. These minor instances, however, are those which sometimes emerge little or none the worse, or, at any rate, eventually get well, from the application of other modes of treatment which I most unhesitatingly condemn after abundant knowledge of their ruinous effects upon severe cases, and the undoubted delay they make in the recovery of the mild. Such are blistering, firing, so-called passive motion, and, equally, the too early recommendation of voluntary motion, each of which is an importation of fresh disaster into parts which one would think deserved a gentler handling, by reason of their already known infirmity. Into this injurious category the hydraulic compression of Mr. Keetley must often enter, can, in fact, only accidentally fail to enter, by the very thoroughness with which it effects compression, and so inflicts upon the joint an injury which it may, indeed, fortuitously survive, but to which it should in reason never be subjected. The very pain produced is faithfully recorded by that gentleman, in the only two cases which he reports, and is such as I should deem evidence rather of injury, however temporary, than of relief. As he truly supposes, such pain would not have occurred under a sufficiently slack application of his bag and bandage, for which he will, I trust, forgive me for recommending a "bag and baggage" policy.

To return to the treatment I am defending. We have here a relief to inflammatory tension, obtained in two different ways: first, by the arrest of movement and the repeated slight compression, friction, or tension which that act inflicts; secondly, by the withdrawal of the fluid when it exists. Either may succeed alone, but either may singly prove insufficient; whereas both combined are certain. For example, a woman applied to me with a small effusion in each bursa patellæ. Each was aspirated three or four times at suitable intervals of a few days, the joints being unconfined. Re-accumulation, however, occurred as often. Then one bursa was aspirated, and the joint restrained with plaster, the other limb being used as before, and remaining *in statu quo*. No further accumulation resulted, the single aspiration sufficed, and the joint was set at liberty after a week or two. The same was then repeated with the other knee, with the same result. I have subcutaneously ruptured the swollen bursa patellæ, and applied a back splint; also punctured, drained, and dressed in Mr. Lister's fashion, other bursal cases, and applied a back splint; and as for synovitis of the knee, fixed with back splint or plasters, or both, aspirated once or oftener, or not at all, in all cases allowing the patient to walk, over and over again repeatedly, without a single failure or mishap, often enough to be quite certain of what I am saying.

It may be true enough that joints plastered in Scott's fashion may succeed in getting well, or may even derive actual benefit from the plan. The *hoc* is there, and I will admit the *post*, but I draw the line at *propter*. The apparatus is a splint, imperfect at the best, but which may suffice, particularly if, as it must often have been, not tightly applied, or if speedily slackened, as it would become in œdematous cases. While intended to compress, it does good in a proportion inverse to the attainment of its immediate object, in consequence of its accidental attainment of another. In mild and unimportant cases be it remembered, for in advanced general arthritis it may be disastrous or, at best, futile.

The strapping of ulcerated legs is undoubtedly of value, whether in the mode practised by Baynton, or in its extended modification, and possible improvement, by John Scott. Is it because of compression, either of the ulcer or of the leg in general, when œdematous or congested? If so, an indolent and already ill-nourished sore is rendered still further anæmic, and an apparent contradiction afforded of the well-known fact that healing proceeds more rapidly where the blood and other juices are increased, as in paraplegic bedsores, and other cases of accident or experiment illustrating vaso-motor paralysis. But the ulcer improves nevertheless, even in legs not œdematous or congested by varicose veins. Is it not rather by the support and fixation of the surrounding healthy skin, and the consequent immunity of the ulcer from incessant stretching and sliding, that the benefit results? So with carbuncle, so with boil, so with sprains. The pressure applied with plasters inflicts a momentary, perhaps a more permanent, pang or even injury, but the seat of disease and the surrounding healthy skin are stiffened, and move only *en masse*, thus neutralising the constant pain due to the slightest local movements. I do not therefore join in the indiscriminate welcome which some accord to Martin's elastic bandage, which is a sensational revival, in a decidedly deteriorated form, of a known and well-approved device that has never yet died out, and consequently not yet stood in need of rediscovery.

So much for the mechanical item; now for the local applications. Any and every form of joint disease can be got well (if got well at all) without them, as I have abundantly satisfied myself, and can assure others. They are of two kinds: the positively injurious and the harmless. The former I have already alluded to, and include every form of effective irritation. The latter are a host, from which I would by no means exclude the pharmaceutical ingredients of Scott's dressing, their filthy character notwithstanding. One cannot legitimately attach any more therapeutic importance to the use of mercurialised, iodised, or improvised applications, *of a non-irritating character*, to inflamed knees, than to any supposed local action of the sticky material in the various plasters, or even of the paper, wood, or iron in the splint. But allowances must, of course, be made for a certain amount of credulity, even among ourselves, to the perfectly free exercise of which I prefer to extend the utmost indulgence, particularly in the use of materials which are, at the worst, but harmless incantations, and which are often not without their psychological uses as *placebos*.

Finally, I am too conscious that my language falls far short of what the interest and importance of the subject demand, though, if it succeed in conveying my meaning, it will answer my purpose.

Liverpool.

## ON THE TREATMENT OF DIPHTHERIA.

BY C. DUDLEY KINGSFORD, M.D.

IN THE LANCET of November 6th, 1858, will be found a letter from me upon Diphtheria, in which I recommended the exhibition of perchloride of iron and chlorate of potash as the treatment most to be relied upon, and drew the attention of the profession to the analogy which exists between diphtheria and asthenic erysipelas of the head and face, in the treatment of which latter complaint large doses of perchloride of iron had proved most beneficial. I was then unaware that Dr. Heslop, of Birmingham, had published similar views. That the same plan of treating diphtheria had been arrived at by independent observers strengthened my belief in its correctness; nor has the subsequent experience of twenty years caused any alteration in my opinion, and consequently I have been much gratified by the testimony of so many practitioners to the value of iron in this disease.

Since 1858 very many cases of diphtheria of varying type, some of a most malignant form, have occurred in my practice, and by adhering to the plan of treatment advocated the results have been most favourable. For several years I have discontinued to apply nitrate of silver and other topical remedies, and only made use of a weak gargle of Condry's fluid; but within the last twelve months I have painted the membranous deposits with lactic acid, one part

in three of water, and in severe cases an efficient nurse has been instructed to do this every four hours. Quite lately, too, at the suggestion of Mr. D. de Berdt Hovell, I have brushed the throat twice a day with perchloride of iron and glycerine, in equal proportion, which acts by corroding, as it were, the membrane, causing it to pucker, and to be thrown off apparently earlier than would otherwise happen, also—no small matter—by entirely removing all fetor. But as the chief object of this communication is to put prominently forward the internal treatment, it may not be out of place to detail the plan I usually adopt. For an adult I order tincture of the perchloride of iron forty to sixty minims, chlorate of potash ten grains, glycerine one drachm, water one ounce, to be given every two or three hours during the day and night; and as the case progresses towards recovery I prefer to increase the interval rather than to diminish the dose. This treatment should be strictly carried out from the moment the disease is recognised, so necessary is it to counteract the poison circulating in the system. An aperient, if indicated, may be given early, but not an emetic—at least I have never seen any benefit effected by one. In fatal cases I have invariably had to regret that larger doses of iron had not been given from the commencement of the attack. Nourishment, such as milk, beef-tea, eggs, &c., must be given every two or three hours throughout the day and night, and so great is the tendency to exhaustion that there should never be any hesitation in having the patient aroused for food and medicine. With regard to stimulants, from the very circumstance of their being almost always required, some care should be shown in the choice and mode of administration; indeed, from want of judgment in this respect, I have seen very baneful results. I find, as a rule, an ounce and a half of port wine given every three or four hours better borne and more sustaining than frequent doses of brandy, and far less liable to excite the sensorium; very rarely, if ever, is it wise to have recourse to more than one form of stimulant. The indiscriminate use of various kinds of wine and different sorts of spirits is to be especially deprecated. A constant supply of steam generated in the room, but not too near the bed, is a desideratum in the management of all cases of diphtheria, and becomes absolutely necessary whenever the air-passages are involved.

When the larynx is affected there is grave cause for anxiety; still even here I would advise steady perseverance in the iron treatment, for from long experience I have learnt that as when pneumonia occurs in the course of fever we dare not relax in our general treatment of the fever, so also in these laryngeal attacks we must remember that we are engaged in combating another stage only of the same disease (diphtheria), but which from its situation is now threatening to close the door against the ingress and egress of the very breath of life. In these cases I have frequently been induced to try special treatment, but have always had to return to the iron and potash mixture, and to regret the time and ground lost by the deviation. In some cases also I have performed, and in others assisted at, the operation of tracheotomy, but not with favourable results; for although relief has been afforded to the most urgent symptoms, yet death from syncope or apnoea has too often happened within two or three days after the operation, and this fatality, I believe, has been in consequence of the operation having been undertaken only when the last stage of the illness had set in. Perhaps I have been loth to advise tracheotomy at the commencement of the croupy seizure because I have seen very many of the most unpromising cases recover under the iron treatment; indeed, patients when apparently moribund will not rarely cough up pieces of membrane, and so free the air-passages from the obstruction which is threatening to become speedily fatal. When diphtheria supervenes upon measles, the prognosis is most unfavourable, for the air-passages are already in a state of inflammation, and there is consequently the greatest tendency for the disease to spread rapidly from the larynx to the trachea and bronchi, from which circumstance, too, tracheotomy, if not actually useless, affords only the faintest chance of success. All our energies must, therefore, be directed to sustaining the vital powers; and, in addition to the iron and potash mixture, small doses of Dover's powder will be found to do good in allaying irritation, and in relaxing the mucous membrane. The submaxillary glands and the lymphatic glands of the neck are often swollen and painful, for which I have found the best treatment is to envelop the neck in cotton wool, which gives great comfort to the sufferer,

and reduces the chance of subsequent suppuration. Albuminuria is common in severe diphtheria, but need hardly give rise to anxiety, for it usually disappears *pari passu* with convalescence, whilst in the fatal cases death occurs too early for it to become an important factor. A not unfrequent sequela is paralysis or paresis, which may affect different parts, but most often commences in the velum palati and muscles of deglutition, when the patient's attention is first attracted by the returning of fluid through the nostrils during the act of swallowing. The forms of paralysis are various; the milder, in which category I would enumerate impairment of vision from loss of accommodation, aphonia, and deafness, are recovered from as a rule in a few weeks under nervine tonics and change of air. I remember the hearing being quickly restored by galvanism in one case of deafness which had resisted all other treatment. Paralysis of the extremities less frequently occurs, and, according to my experience, is of much longer duration.

Whether diphtheria be infectious or not is a moot point; for my own part, I am inclined to think it is not, for in nearly every outbreak I have been enabled sooner or later to trace the source of poison to some defect in the dwelling or to some definite cause to which the patient has been exposed out of doors, and I have no recollection of ever seeing the disease conveyed to the nurses or immediate attendants. I have, it is true, heard of such instances, but they have not come under my own observation.

Upper Clapton.

## A Mirror

OF

## HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

### UNIVERSITY COLLEGE HOSPITAL.

CASES OF OPERATION FOR NARROW STRICTURE WHERE  
THE AFTER-RESULT HAS BEEN NOTED.

(Under the care of Mr. BERKELEY HILL.)

THE subjoined completes a series of internal urethrotomies performed by Mr. Hill at the above-named hospital during the year 1875. The report was commenced last week.

CASE 6. *Stricture admitting No. ½ catheter; internal urethrotomy.*—W. B—, aged thirty-five, hawker; admitted June 2nd. Had gonorrhœa seven years ago, and again four years ago. In the first attack he was unable to pass urine. Had had No 8 English catheter passed for the last two or three years about every six months.

On June 4th internal urethrotomy by the wedge-incisor was performed. The stricture was five inches from the meatus, and admitted only No. 2 French (½ English) catheter. No. 26 F. (15 E.) sound was passed into the bladder, and No. 22 F. flexible catheter tied in. On the 6th No. 23 F. (13 E.) silver catheter was introduced. The urethra smarted a little on passing water for the first time after the operation. On the 7th he was discharged to be an out-patient.

A month later he attended the hospital, and passed No. 23 F. (13 E.) easily. Ordered to pass the bougie weekly.

CASE 7. *Traumatic stricture with much induration, lasting twelve years; external division; relief for three years, then slow contraction.*—P. S—, aged forty-seven, was admitted June 12th. Had had gonorrhœa twice. Twelve years ago, while riding in South Africa, he was thrown forward on the pommel of his saddle, and received a severe blow on the perineum. The next day his urine, which was very bloody, passed only in drops. He lay in bed some weeks, got better, and could pass water easily. For the past five years he had had constant trouble with his urine, sometimes almost complete stoppage. Had had many instruments passed by different surgeons, but for two years no instrument had entered the bladder. Had come to England