

ON THE

TREATMENT OF THE VARIOUS SPECIES OF FEVER.*

By C. SEARLE, M.D., M.R.C.S.L., Bath.

If the views I have taken of fever be correct, the principal indications of treatment obviously bear reference to the cause or causes giving rise to this affection. Thus, if the fever originates in exsanguination from hæmorrhage or the too free use of the lancet, or from inanition, or impoverishment of the blood, the stage of excitement should be moderated or kept within due limits by tepid ablution of the surface, and for internal administration water saturated with carbonic acid gas, cool enemata, and the like gentle means; and milk, or a farinaceo-gelatinous, or other suitable nutriment, should be afforded,—suitable, be it remembered, both in quality and quantity with the weakened state of the digestive and assimilative functions. At the same time we must bear in mind duly to support or sustain capillary action to the point of health, as nearly as possible with the weakened state of the system, by wine or other cordial, whereby the recurrence of congestion will be prevented, and the return of fever in consequence.

It is in such cases that opium has been so generally advised, and a most useful remedy it is, judiciously employed. Its operation on the system, it will, however, be remembered, is threefold; in small and repeated doses, or in a moderately large one, it is stimulant in the first instance; this is succeeded by quietness and sleep, and that by exhaustion—equivalent, in most cases, to the previous excitement. In having recourse to it we must, therefore, bear in mind the indications of the period or stage of fever at the time being, that the patient may have the full advantage of the restorative agency of balmy sleep, as well as of its stimulating operation at appropriate periods; and that the succeeding stage of exhaustion be anticipated and provided against by the administration of timely and suitable cordials, or congestion and fever, or collapse, may ensue. The powers of the system must, therefore, be in this and in every particular carefully husbanded, and every cause of excitement, as well as of expenditure of power, by rising from the bed, reading, talking, &c., must be cautiously avoided, and great attention be observed withal to secure to the patient fresh air and immunity at the same time from the cold.

Next, should the cause of excitement be the blood's surcharge with carbon from defective oxygenation of the blood, the effects of cold upon the system, as previously explained; or otherwise, the effects of heat, as

in a hot season or tropical climate, by consequence of a rarefied and attenuated atmosphere; the excitement of the torpid capillaries and the purification of the blood by the excitement of the secretive and excretive functions, are the chief indications of practice; and as in the composition of bile, carbon is so large a constituent, and as the liver and vessels of the portal circulation, from the reasons before given in cholera, are more particularly liable to become the seats of engorgement, the excitement of the hepatic function would appear chief in importance. Hence mercurials, antimony, and purgatives, are our principal remedies; and as I believe the direct effect of mercury to be the increase of capillary action, hence the excitement of the secretive functions in general and the deobstruent powers of mercury, which is of all remedies the most useful. As this cause of fever may be based upon, or exist with, a plethoric condition of vessels or phlogistic habit, favouring the synochal form of fever in a more exalted degree, febrile excitement may run high, or inflammation may become developed; and as the liver and bowels are more particularly the seat of engorgement (hence the precordial oppression), so are they proportionately liable to inflammation and derangement of function; hence cholera morbus, hepatitis, and dysentery, the diseases of hot climates and seasons; as well as diarrhoea and gastro enteritis, or pneumonia and its modification in this country, where aerial transitions are considerable, and the skin and lungs especially subjected to such influence, and predisposition to such affections often great, requiring for their treatment, in addition to the fore-mentioned remedies, the free use of blood-letting and the warm bath, derivatives, and all the *et ceteras* experience has proved to be useful in such cases.

The same cause of fever coming into operation conjointly with malaria, may, as I have elsewhere observed, so depress the functions of life that reaction or excitement may not, or otherwise may very partially take place; hence sporadic cases of congestive cholera occur, both in this and in tropical countries, from a milder cause than usually gives rise to this affection; and hence, likewise, from the conjoint but mitigated influence of one or other of these causes, arise the bilious remittent and compounds of this description of fever in India, and the typhoidal fevers of this country, the treatment of which we shall speak of hereafter.

Again, reverting to malaria as a cause of fever, of which intermittent is the most simple form and type of the class, the same indications of treatment, or the blood's purification, would appear to be the chief intention to be held in view, and assuredly may be resorted to with a certain degree of benefit. I should, however, add, in reference rather to the predisposing or exciting cause,

* In continuation from p. 373.

or to the effects upon the system resulting from the blood's contamination with this poison than to this agent itself. Experience having proved to us that malaria giving rise to intermittent fever, having taken possession of the blood, adheres to it with a degree of pertinacity that will not readily yield to these means, or allow us wholly to depend upon them. We may, therefore, conclude that none of the secretive organs have any direct power of eliminating or divesting the blood of this aerial poison, in common with some other poisons of this class. Hence we find fever and hydrophobia occurring often many weeks after the blood's impregnation with the virus, or if I may be allowed the expression, the seeds of the disease have been sown.

In the case of malaria, although it may not be in our power to divest the blood of its presence altogether by the excitement of the secretive organs, the effects of the poison upon the system in inducing congestion of the viscera and torpifying and deranging the liver and secretive functions, it is in our power to obviate or remove by such means; and by the agency of another remedy its action upon the system we may supersede or annul, and this I believe to be the operation of the cinchona, or quinine—its active constituent in effecting. The effects of this remedy may be, therefore, to combine with and neutralise this poison, or to impart qualities to the blood incompatible with its operation. Or it may be that of a stimulus upon the capillary system, more permanent perhaps than any other known to us (and hence its acknowledged qualities as a tonic), thus preventing the congestion of the veins which would ensue from the debilitating influence of malaria, and its consequence capillary excitement. Whatever its action, general experience at all events testifies that quinine, administered to a certain quantity, supersedes that of malaria upon the system, or prevents the development of intermittent fever as well as of its recurrence, and many other varieties of this type of fevers; and this it does without reference, I would say, to the mode of its administration so much as to the quantity admitted into the system. The point to be aimed at is the blood's saturation to a certain amount, and this I have noticed in many cases to be marked by the following characteristic symptoms: a sense of fulness or rather of tightness in the head, singing noise in the ears, deafness, and obtundity of intellect—effects which I have very generally seen to follow the administration of a scruple of quinine, in doses of a grain or two every hour during the apyrexia, or an equivalent quantity of the cinchona in powder, and fever seldom to recur after these symptoms have become manifest. Such, at least, is my experience, which, be it observed, has been considerable in the treatment of fevers of this class, having held

medical charge of the garrison of Seringapatam for a period of four years, where fevers of this order, from simple intermittent to the exalted affection of typhus icterodes of authors, are endemic throughout the year, and suffered much thereby in my own person. And from observations made since my return to England I am warranted in saying that fevers from similar causes, malarious influence, variously modified by temperature, season, and a variety of circumstances, and assuming a variety of forms, as acute rheumatism, influenza, scarlatina, and other forms of the exanthemata, and often of epidemic prevalence as well, are of much more frequent occurrence than the profession in general are aware of, and to which I would invite their particular attention, as calling for the use of this remedy, which of late years, in the treatment of these varieties of fever, it has not been much the fashion to employ. And to which circumstance the frequent fatality of such cases are, in my opinion, mainly to be attributed; as I know of no remedy which can fill the place of this in fever, where this is the one really indicated, and which it may be well to remark are more particularly characterised by periods of exacerbation or remission. In support of these opinions I shall, in a future communication, offer a few cases of each coming under my own immediate observation.

It must be obvious that the fevers of malaria may be, as in the forms originating with the blood's surcharge or contamination with carbon, based upon, or be connected with, fulness of system, or a condition favourable in other respects to the development of the synochal form of fever; and thus may the attack be preceded by great depression or convulsions in the cold stage, and the excitement of fever which succeeds this give rise to inflammation in some organ or structure in which predisposition exists, or susceptibility of structure renders more particularly amenable to its operation; and as the viscera of the abdominal cavity and the brain, from the peculiarity of their circulation, as I have previously pointed out when on the subject of cholera, are more particularly prone to congestion, so are they—the stomach, bowels, spleen, and head—to inflammation; and hence the frequent affection of these organs in simple intermittent and all the varieties of the order, as well as the imperfect intermissions and complications which ensue, in consequence of these inflammations which take place maintaining a continued excitement, in many of the species of this, the typhoidal order, and remitting types of fever.

And, to this compound affection of inflammation, based upon a disease of debility, indicating, it would appear, two opposite modes of treatment, and requiring a very nice and discriminating practice, originate

the diversity of opinion which exists among the profession, and the indefinite line of practice laid down by most writers for the treatment of such affections; but which, I hope, the explanation afforded will tend to remove, as it exhibits, I am of opinion, that the general treatment should bear reference to the cause, and the particular to the local affection, in these cases; and thus may bleeding and bark prove not incompatible remedies with each other, each having its due share and respective weight in the treatment.

Bath, May, 10, 1843.

PATHOLOGY AND TREATMENT OF RICKETS AND MOLLITIES OSSIUM.

THE diseases which exert the greatest influence over the condition of the bones, altering them from their normal state, are scrofulous affections, to which rickets and mollities ossium may be considered as belonging. In these two diseases, the earthy matter of the bone becomes diminished, and the bone falls into a state such as if it had been macerated in muriatic acid; supple, flexible, and ill-adapted to serve as a support to the other organs of the body. The cartilage itself itself submits to an essential alteration, and is incapable of being converted by boiling into gelatine.

Concurrently with these changes, phosphate of lime is eliminated in large quantities with the urine. This salt, otherwise little soluble, and discharged generally only in small quantity by the kidneys, is, according to Berzelius, readily soluble in lactic acid; anything, therefore, which causes a superabundance of this acid in the system is capable of depriving the organism of a large share of the earthy matter of the bones. Sugar of milk, grape sugar, starch, and gum, are readily converted into lactic acid, but they are so in the stomach only when digestion is ill-performed, in which case lactic acid may be an abundant product in the system.

Rickets and mollities ossium, therefore, are not essentially diseases of the bones, but seem to be results of imperfect digestion or nutrition; to improve which is consequently our first indication. None of the substances readily converted into lactic acid should be taken, as sugar, starch, gum, &c., nor even milk (rickets are often the consequence of children having been too long suckled), but animal food and such other as is freely digestible should be chosen, in aid of which we ought to employ such medicines as may restore the general tone of the system.—*Marchand, in Journ. de Pharm. et de Chimie.*

ON LUNAR INFLUENCE; BEING A FOURTH CONTRIBUTION TO PROLEPTICS.* By T. LAYCOCK, M.D., Physician to the Dispensary, York.

THE opinions hitherto held by scientific men on the validity of the doctrine of lunar influence have been remarkably discordant. The sceptical have always been unphilosophical in their scepticism, and the believers up to the time of Mead were credulous in their belief; both agreed, however, in admitting or rejecting the doctrine without much examination. As it has had, and may have, an important bearing on proleptical science, I propose to review the subject in a spirit of impartiality.

The phases of the moon have measured time from a very early period. Mr. Cullimore traces evidence of a lunar division of time on the bricks of Nineveh and Babylon, and Sir G. Wilkinson is of opinion that the circumstance of the god Lunus being the dispenser of time, and represented as noting off years upon the palm-branch, leads to the idea that in former years the Egyptians calculated by lunar instead of solar years. The hieroglyphic of a month, which is a lunar crescent, shows, also, that their months were originally lunar. The derivation of the word *month* in our own language, and of *monat* and *Μῆν* in the German and Greek, sufficiently proves that the moon was likewise the measurer of the months at a very early period in the history of European nations.

This connection of the moon with the measure of time seems to have brought that planet into relation with the religious rites of ancient nations, as the Egyptians and Jews; and also to have given origin (in part) to the *mythological* idea so extensively prevalent of a lunar influence on marriage and child-bearing. Even the barbarous Greenlanders, as Egede informs us, believe in this superstitious notion. They imagine that the moon visits their wives now and then; that staring long at the full moon will make a maid pregnant, &c. Among the ancient nations the general idea was, that the lunar influence varied according to the age of the moon. Bombasties, the Egyptian Diana, was not equally favourable to parturient females and their offspring in her different phases. Among the Jews the full moon was believed to be lucky, and the two other disastrous. "The full moon," says the Rabbi Abravanel, "is propitious to new-born children, but if the child be born in the increase or wane, the horns of that planet cause death; or, if it survive, it is

* See LANCET, Vol. I., 1842-43, pp. 124 160, 423, 929.