

PATHOLOGY AND TREATMENT OF SCARLATINA.

IN A LETTER TO THE EDITOR OF THE LONDON MEDICAL GAZETTE.

BY W. HAMMOND, JUN.

HAVING been led to adopt a different plan of treatment from that which is commonly relied on in scarlatina, I am induced to request your circulation of the result of my observations ; and the more so that the disease which has recently spread throughout England, has assumed the severe and dangerous character of the scarlatina anginosa, which prevailed about fifty years back. It appears that the scarlet fever of that period was of a nature so formidable as to excite a universal dread of its contagious influence and destructive effects. This dangerous form of scarlatina, however, as is well known, subsided into that mild form which has been appropriately named scarlatina mitior, and which, as Sydenham remarks, "is a fever so slight, as scarcely to be accounted a disease, requiring only an antiphlogistic regimen, and the absence of cold air." And for a number of years this mild scarlatina prevailed, and has even run through whole villages, without requiring professional assistance. But it will not be doubted that the scarlatina anginosa has again made its appearance under a scarcely less formidable type than its predecessor. And it is upon this form of the disease that I now respectfully entreat the attention of my medical brethren,—under the belief that the long continuance of the milder kind, and the successful treatment of many slight cases, have thrown us off our guard, and created a prejudice in favor of doing little or nothing, whilst a severe form of scarlatina, requiring a proportionally active treatment, has been gradually taking its place.

In order to render the plan of treatment which I shall venture to recommend more easily intelligible, I shall not apologize for offering a brief description of the symptoms and progress of *scarlatina anginosa*, such as I have observed it.

The scarlatina anginosa is ushered in by pain in the limbs, prostration of strength, slight sore throat, and headache. These symptoms are followed by a burning skin and a rapid pulse, succeeded by the scarlet rash, more or less over the whole body. On or about the second night, the sore throat becomes worse ; the head more affected ; and on that night, or more commonly on the third, there is extreme restlessness and delirium, and there is sometimes stupor. The whole of this first stage would appear to be inflammatory in the highest degree, the danger commencing with the extreme restlessness, delirium, or stupor, or unusual short breathing. If these symptoms be not removed, the case ends fatally from the seventh to the tenth day.

The skin in this fever is hot and dry ; and in many severe cases perspiration will not be produced till three weeks to a month have elapsed from the commencement of the attack. The throat and head are seriously attacked in this disease, and change of structure in vital organs, as the pharynx, trachea, brain, sometimes takes place ; and such circumstance will of course be fatal. It will sometimes happen that sore throat and fever will occur in individuals exposed to the infection of scarlatina

without rash on the surface of the body ; such cases may be tedious and troublesome, but are seldom dangerous.

Scarlet fever sometimes becomes putrid in its character, becoming what is termed *scarlatina maligna* ; petechiæ will appear on different parts of the body ; the sore throat will be sloughy and fœtid ; the lips covered with brown sordes ; and the tongue dry and brown ; the pulse quick and small. In such cases the termination will in general be rapidly fatal. The rash in *scarlatina anginosa* is sometimes general and florid, at others partial, and with little color. The amount of rash in *scarlatina anginosa* does not appear to be any indication of danger : the head affection, or state of throat, or extreme difficulty of breathing, constitutes the danger.

The sudden interruption of all the secretions of the body, particularly of those of the bowels and skin ; the determination of blood to the head, throat, and sometimes to the lungs ; the disturbance of the brain and nervous system so quickly after the fever has commenced ; the rapid circulation, the pulse often 130 in a minute—have led me to consider the *scarlatina anginosa* as a fever highly inflammatory.

In accordance with this view, an active depleting plan of treatment would appear to be the one indicated ; and I would recommend, that as soon as this fever commences, calomel and active purgatives should be first employed ; when restlessness comes on, or the slightest expression of delirium or stupor, blood should be abstracted : in adults it is of course easily obtained from the arm ; in young children, from the jugular vein. Calomel and antimony in large doses should be given at night, and infusion of senna and sulphate of magnesia as an active purgative in the morning.

With infant children, calomel and jalap, or scammony and calomel, will answer the purpose. The purging should be continued actively till the feverish symptoms yield, and calomel and antimony, in small doses, as a febrifuge, should be given every four or six hours, to reduce inflammatory action. It does not appear necessary to affect the mouth by mercury, though no great evil arises if this accident occur ; but the bowels should be made to act once in four, or once in six hours, until the active fever subsides.

The sore throat will require leeches for the first three to eight days, and sometimes the inflammatory affection will become indolent ; and this condition of throat will receive benefit from external irritation, for which the best means is a mustard poultice. In the delirious state, leeches applied to the temples will be of use, but should not wholly be depended on. The abstraction of ten or twelve ounces of blood from the adult, between the second and the fifth day, and four to eight ounces from children, according to their age, followed immediately by active and mercurial purgatives, commonly takes off the brain affection, diminishes the severity of the sore throat, lessens the pungent heat of skin, lowers the rapid pulse, and puts the patient in a state of safety about the fifth to the eighth day.

A hot dry skin will continue sometimes long after this period, and will require sponging with tepid vinegar and water, and, after a time, the use of the warm bath.

When symptoms of debility come on, after the active fever is subdued,

small doses of ammonia will be useful ; and when all heat of skin has ceased, bark may be safely employed.

Having ventured to recommend so active a treatment in scarlatina anginosa to the adoption of the medical practitioner, it may be necessary for me to state that the grounds upon which I have founded this recommendation, is the successful termination of 300 cases, during a practice of twenty years. The treatment was, of course, more or less active, according to the symptoms of inflammatory action ; but in no one case where I resorted to it, had I occasion to repent the use of the lancet, but in several, where bleeding by leeches only was employed, the protracted period of fever, and the after ill consequences—as abscess in the ear, suppurating glands, long-continued debility—made me regret that I had not taken blood from a vein. In sixty severe and dangerous cases of scarlatina anginosa, in which blood was taken from a vein, delirium and stupor subsided after the bleeding ; a second venesection was in no case required, and the recovery was rapid in all. To illustrate more particularly the treatment I have described, or rather, indeed, more forcibly to impress upon the public how thoroughly inflammatory this form of the scarlet fever is, I will now detail a few cases.

CASE I.—A boy of seven years of age, was the eighth in succession attacked by scarlet fever, and it had been severe in most of the previous cases. On the second night he was in a highly-excited state of delirium, and could with difficulty be kept in bed. His pulse was 140 ; his head hot ; his skin dry ; his tongue parched. Eight ounces of blood were taken from his arm, and five grains of calomel given, with four of antimony. The delirium soon ceased, and in two hours he fell asleep. In the morning his head was perfectly relieved ; he was sensible, and cheerful. In the night he had pulled off his bandage from the arm, and bled, before it was discovered, at least twelve ounces more. His bowels had acted freely ; his throat was considerably better ; he recovered rapidly ; and on the fifth day was up and dressed, and wished to be allowed to walk.

CASE II.—A slender boy, of thirteen years, who had outgrown his strength, was attacked by scarlatina anginosa. On the morning of the third day delirium commenced ; twelve leeches were applied to his temples and throat, and he was freely purged. At night he was most restless, and became delirious. Ten ounces of blood were taken from his arm ; he obtained sleep soon after ; on the following morning he was sensible ; his throat better : the purging was continued, and on the fifth day he was convalescent.

CASE III.—A boy, nine years of age, had been treated by gentle and continued purging, and by leeches to the throat, gruel and water for diet, up to the eighth day, without any remarkable symptom, but with more or less fever during that time. On the eighth night he had a dry hot skin, a brown dry tongue, a quick small pulse, with a *slight jerk* in it ; still, as I thought, denoting inflammation not thoroughly put out. He was at one time stupid, at another delirious ; his throat was coated with soft lymph, which fringed the fauces and covered the larynx. The child breathed with difficulty, and instinctively tried to throw up the flakes of lymph which obstructed his breathing. He could not swallow.

Eight ounces of blood were taken from his arm ; in an hour his delirium and restlessness subsided ; his breathing became more easy ; he slept considerably. On the following (the ninth) morning, he was sensible when he awoke ; his throat had thrown off large masses of lymph ; the boy's energies seemed restored, and his fingers were continually passed down his throat, to draw away the flakes which obstructed his swallowing. He had no more fever, and recovered rapidly.

CASE IV.—A plethoric child, aged three years, after active purging, on the third day became extremely hot and restless ; at night stupor came on, with short breathing. The state of the throat was not unusually severe. Four ounces of blood were taken from the jugular vein. The restlessness and heat of skin quickly subsided ; four grains of calomel, with four of jalap, were got down ; the child was freely purged during the night, and in the morning was relieved, and out of danger.

CASE V.—A slender child of four years, on the fourth night, under circumstances very similar, but with worse throat, was treated by six ounces of blood from the jugular vein, followed by a calomel and scammony purgative, with the same result.

It might, at first thought, be supposed that such active remedies must be followed by extreme debility : it will be generally (I had almost said invariably) otherwise ; and if debility be the consequence of the high inflammatory action, we can scarcely doubt that the debility will be obviated, or lessened, by diminishing the degree and shortening the duration of that inflammatory action. In accordance with this general remark, I have found that all the cases which were, during the first four days, treated actively, were the soonest well, and the least affected by after ill consequences—as glandular disturbance, abscess, &c. ; and were the least weakened as to their muscular power. In fine, I have no hesitation in saying that the arrest of the inflammatory fever is the arrest of debility, and hence the recommencement of strength.

It will be seen, then, that I cannot approve of that mild antiphlogistic plan, consisting in little more than saline draughts and barley-water, too often employed in scarlatina anginosa ; and that my experience leaves me no choice in recommending an active depleting plan of treatment.

It is scarcely necessary for me to observe that I have here written solely on the form of scarlatina termed anginosa, not maligna. I may add also, that, in 300 cases, I have not met with one of the latter ; and this circumstance leads me to suspect that the scarlatina maligna is sometimes only the putrid termination of the anginosa, unchecked, or not sufficiently depleted ; in its inflammatory stage. It is, however, perfectly possible that particular localities (as unwholesome air, or a marshy district) may give a malignant character to scarlet fever. To this form of the disease my observations are not intended to apply ; but distinctly to that species of scarlatina anginosa which has been so prevalent during the year 1833. It is right also to state, that the situation of my practice has been ten miles to the north of London, in a bracing and invigorating atmosphere.

The profession will, of course, understand that I do not recommend bleeding in *all* cases of scarlatina ; but in those that are severe, attended with intense heat of skin and rapid pulse, or the *slightest* brain disturb-

ance ;—and the time for bleeding between the second and the fifth day : but should it have been neglected beyond the fifth, and the patient be under stupor or delirium, or extreme short breathing, the lancet would still offer the best chance of recovery, as illustrated by Case the third. Purging from the *very commencement* of scarlet fever is indispensable ; and after bleeding, the effect of a purgative, relieves in a much higher degree than before : and for this opinion we have the highest ancient and modern authorities. I had the misfortune to witness a case where purgatives failed in operating upon a child for the first forty-eight hours, and no after-treatment could recover that child : it died after five days' struggle.

Some objection to the abstraction of blood may arise, at least with the public, from an apprehension that it would interrupt the continuance of the rash : bleeding and purging both promote that continuance ; and if the eruption be previously checked, it will appear more fully after either.

Sponging with tepid vinegar and water is useful in relieving the pungent heat of skin, which always, more or less, attends the scarlatina anginosa ; yet, where there is head affection, this should not be depended on as a *curative means*. Indeed, any benefit from the skin is little to be relied on ; we not only cannot obtain perspiration during the inflammatory stage, but, in many instances, several weeks pass over before sweating, or even a soft state of skin, can be procured : all we must look to obtain is lessened heat ; and long experience has taught me that that object is best accomplished by active early depletion.

It is, no doubt, a matter of regret that the practitioner may often find a difficulty in procuring the concurrence of friends and parents in this plan of treatment ; and we have only to hope that its advantages may be as fully appreciated as those of a similarly active treatment in measles, and we do not question that experience will produce this beneficial result.

SIR ASTLEY COOPER ON FRACTURE OF THE NECK OF THE FEMUR.

To the Editor of the London Medical Gazette.

SIR,—I find in your last number, in a report of Le Baron Dupuytren's lecture, that he attributes to me the opinion that fractures of the neck of the thigh bone, within the capsular ligament, not only "never unite, but that it is impossible they should unite by bone."

It is quite true that, as a *general principle*, I believe that those fractures unite by ligament, and not by bone, as do those of the patella and olecranon. But I deny that I have ever stated the impossibility of their ossific union ; on the contrary, I have given the reason why they occasionally may unite by bone.

The following are my words—"To deny the possibility of their union, and to maintain that no exception to this general rule may take place, would be presumptuous."

I then proceed to state, that the cause of the deficient union is to be found in the reflected ligament of the cervix femoris being torn through,