He returned on the 22nd of April, with the same degree of nervous tremor on the left side of the body, as when he was first admitted. A small tumour was now observed nearly in the same situation as the former one; some obscure sense of fluctuation was noticed, and the tumour was punctured; a small quantity of serum, mixed with adipose flocci, came away. This operation, also, aggravated the disease in a very remarkable manner; the tremulous motion of the left arm, especially, was constant and excessive. Sulphureous and cold baths, valerian, oxide of zinc, and various other remedies were now employed, but without the slightest benefit; and the little patient returned to his friends on the 18th July, in a much worse condition than when he came into hospital, nearly a twelvemonth before.

REMARKS.

Although so much has been done within the last few years to render the diagnosis of diseases of the nervous system more clear and certain, still it must be confessed that many cases will occur in which it is impossible or extremely difficult to connect symptoms with lesions, or, in other words, to determine upon what precise alteration of structure in the nervous tissue the various nervous symptoms depend.

In the cases which I have just related, this difficulty exists in a very high degree. The case of Challot (Case III.) presents an example of that peculiar affection which I believe that I have been the first in this country to describe under the name of "nervous tremor of children." The trembling, in cases of this disease, somewhat resembles the *paralysis agitans* of old people, but the force of the muscles is not diminished; the movements, like those of chorea, are involuntary, but they never present the irregularity of motion observed in chorea, being rather marked by oscillations from side to side, or from above downwards. The causes of the disease are very obscure; in one case which I have seen, however, it could be traced to fright, and in a second it seemed to have been connected with the action of lead. In the case of Challot, related above, the removal of a small tumour from the back of the scapula appears to have been the exciting cause of the disorder. I have had only one opportunity of examining the body of a child who died while labouring under nervous tremor: the little patient was cut off by measles. The brain and spinal marrow were examined with the greatest care, but no lesion of even an insignificant nature could be discovered.

In the case of Dujardin we have an example of much severer disorder of the nervous system, to the material cause of which it is by no means easy to ascend. The disease was not chronic meningitis, nor tubercle, nor chronic softening of any portion of the brain. The progress of the symptoms, as well as the symptoms themselves, was altogether anomalous. We first have severe fits of headache, which continue for such a length of time as to justify the idea of some organic lesion within the head. These accesses suddenly disappear, and are replaced by what may be termed fits of paralysis, which last about eight minutes, and return regularly every day. Six leeches are now applied behind the ears, and the child not only becomes permanently paralysed, but loses the power of articulation, although the movements of the tongue remain free. The augmentation of the volume of the head is a symptom worthy of

notice, and might have lead to the idea of hypertrophy of the brain, were it not that the disease continued unabated after the head had been nearly restored to its normal volume.

In the early history of Delorme's case we likewise find many symptoms which seemed to point to organic disease of the brain—viz., headache, change of temper, weakness of the intellectual faculties, embarrassment of the speech, and difficulty of progression. These were soon followed by other signs of apparently equal significance: the neck was stiff; the pupils were dilated, and, as in the case of Dujardin, the power of speech was lost. The permanent paralysis of the lower extremities, however, was a symptom which does not belong to organic diseases of the nervous centres in children; and that the disorder depended on some functional derangement, was shown by the rapid manner in which the little patient was restored to complete health.

London, Jan., 1842.

CASE OF SUCCESSFUL AMPUTATION

IN

SPREADING GANGRENE.

By A. T. S. DODD, Esq.,

Surgeon to the Chichester Infirmary.

The question as to the propriety of amputating in spreading gangrene is at present much nearer to a satisfactory solution, than it was some few years since. When M. Larrey gave his decided testimony in favour of the prompt performance of the operation in cases of traumatic gangrene, as soon as the necessity for it was clearly established, his opinion was in opposition to all the generally received doctrines, and since that time it has been but slowly received in this country, though at present the evidence of Mr. Lawrence, Dr. Hennen, and Mr. Hawkins, among many others, goes far towards settling the debated point. Still, however, as we must consider this as a matter as yet sub-judice, I think the evidence of one case may, without impropriety, be thrown into the scale.

The fact seems to be that, on the subject of amputation in general, we are yet in want of a sufficient body of evidence to determine in any satisfactory degree, the limits and the legitimate extent of application of this important operation. The instructions given by our best authors are, when brought to practical application, exceedingly vague and unsatisfactory; they generally lay down rules only for cases of an extreme nature, in which the common sense of the practitioner would be almost a sufficient guide by itself. But the merits of the operation are by no means to be correctly judged of in this way; nor will these instructions form a guide to be relied on, in a numerous class of cases, when the surgeon is anxiously seeking for instruction, and an opinion to share with him the serious responsibility of a decision which involves the fate, either of the life, or the limb, of a fellow creature. In almost every case which may place him in this very responsible situation, he will look in vain for anything like a staff upon which he may confidently rest; and he is, therefore, obliged, with the help of general directions, to form a decision from his own experience, and if this has not been extensive, the hit must be made at hazard in a considerable degree, or at least, without the satisfaction and confidence that a scientific and experienced guide might afford.

It is, of course, evident, that I here refer chiefly to junior surgeons, and particularly to those practising in the country, though I may be allowed to add, that few have attained that confidence in their own power, nor need any desire it, that they are not glad upon these interesting and important occasions to call in the aid of an opinion and advice which they can rely upon.

Under these impressions it was my intention to have attempted, in some degree, to have supplied this deficiency, by collecting the experience of our most approved surgeons of the present day, and endeavouring, from the general result, to draw some definite and satisfactory conclusions on this practical point. This plan I have already begun upon, and though other and necessary occupations have prevented my preparing the article for the present volume of the Provincial Transactions, I hope to be able to complete it for the next (and I have gone no further). At present I must content myself with the relation of the following case which, as it presents some interesting features independent of the question immediately before us, I shall not hesitate to give entire:—

Charles Shotter, aged 33, a gentleman's coachman, had always been very healthy till about eighteen months since, when he had a severe attack of fever, since which he has never been hearty; was admitted to the Chichester Infirmary, March 14, 1833. His hand had been caught in a chaff-cutting machine, which sliced it through, obliquely, a little below the back of the wrist joint, but not dividing the soft parts in the palm, and leaving the thumb and little finger entire, except some slight laceration of the skin; the carpal bones, and metacarpal, were cut through in the same oblique direction; the great artery of the thumb was uninjured, and only the *arteria radialis indicis* bled at all profusely, and this was accordingly tied. There had been some considerable hæmorrhage before his arrival at the hospital, but not much after he was admitted; indeed, as all the larger digital branches from the palmar arch were divided by the accident, I was surprised to find so few bleeding.

As this was a simple case of incised wound without contusion, and as the saving of a thumb and little finger would be a desirable object to my patient, I determined to try to do so in preference to amputating the hand, and I therefore turned back the integument of the palm, so as within a little to meet those of the back of the wrist, and kept them in their place by sutures and adhesive plaster.

All things went on well till the fourth day, when violent inflammation took place at the wrist and forearm, which obliged me to take off the strappings. The report on the 22nd of March is—There is a good deal of suppurative in the hand, and of inflammation up the arm; countenance distressed; pulse quick, weak, and irritable; stump looks pretty well, except that the granulations are flabby; there is a dark-coloured spot on the fore part of the arm above the wrist.

23. Had a comfortable night; pulse 100; inflammation of the arm rather less; suppurative free; countenance anxious; tongue brown; a large gangrenous vesicle upon the discoloured spot.

In this stage of the case the question of amputation was not entertained, because, the inflamed state of the forearm would not permit its performance to save the elbow, and I was unwilling to give up hopes of doing this, by subduing the inflammation which was the cause of the incipient gangrene. On the next day, however (24th), I found that the vesication had spread, and that the peculiar hard swelling accompanying gangrenous inflammation occupied the whole forearm, while emphysematous crepitus could be felt, even to about a third of the lower part of the upper arm. There was no line of demarcation in the skin; indeed the integuments of the whole limb about the lower third of the forearm were only

inflamed, not gangrenous, though from the hardness, swelling, and emphysema, I could not doubt that the gangrene had spread along the cellular texture. The patient made little complaint; pulse 93; countenance much distressed. This being the state of the case, there was an immediate necessity for deciding the question, whether it was better to wait any longer in the hope of a line of demarcation taking place, or remove the limb at once, and trust to the hope of thus putting a stop to the destructive progress that was going on rapidly. With the consent of my colleagues I decided upon the latter plan, and removed the limb at the middle of the upper arm by the circular operation. The only remark that I would make on the circumstances of the operation is, that in dividing the muscles, they retracted little or nothing, either at the time or afterwards; they were slightly dark-coloured, but otherwise all the parts cut through had a perfectly healthy appearance. Not more than half a pint of blood was lost at the time of the operation. Three hours afterwards the patient was quite comfortable. From this time he went on extremely well, with the exception, first, that on the 28th the integuments of the stump underwent a smart attack of inflammation, which yielded to one application of leeches; and secondly, that for about three days after this, several sloughs of cellular texture passed into the dressings, leaving a large cavity, which, however, soon filled with granulations. These accidents of course retarded the case, but he was discharged well on the 26th of April.

REMARKS.

This case seems to demand a few more observations from me. In the relation I have said nothing on the subject of the treatment, because this seemed hardly necessarily connected with the object which I had in view in communicating it. I may here mention that the ordinary means of subduing inflammatory symptoms were at first adopted, and the other symptoms were combated as they arose. But one peculiarity worth noticing, as indicating the state of the constitution, was that even when convalescent he could not bear any tonic medicine more active than a mineral acid; anything more than this produced febrile excitement.

It may be a matter of debate with some whether I was justified in attempting to save the hand, as by amputating at first at the wrist I was pretty certain of having the use of the elbow joint and forearm. I have only to answer that, upon mature consideration, and remembering some remarkable instances of the utility of portions of a limb saved, I acted as I did, and (though this adds little to the value of the previous decision) I think I should again take similar steps upon a like occasion.

On the main subject which has occasioned the publication of the present case, my opinions would be of little value when the subject has been so often treated of by the leading men of the profession; I shall, therefore, abstain from offering them except upon one point, which appears to me to have been a good deal, if not entirely, overlooked. In selecting the spot at which the amputation is to be performed, if we trust to the appearance of the integuments, we shall rarely find this a safe guide. Of course I am here speaking of the case of spreading gangrene, where there is no line of demarcation. The integuments are inflamed and discoloured, and the limb considerably swollen and hard to a certain extent; but this does not show the limit of the disease, and if the operation is performed by this indication as a guide, diseased parts will be

cut through and the stump can hardly be expected to do well. But the emphysema, as indicated by a crepitus upon pressure, together with some, often but little, general swelling of the limb, may be traced higher than the external appearances would lead us to expect, and this symptom, the product of gangrenous inflammation going on in the cellular tissue, should, I conceive, point out to us the limits for operating. This proceeding demands an apparently great sacrifice of limb; but as it is an established general axiom in surgery to remove all the disease, it is evident that, if we are to consider the emphysema as a certain indication of the disease in question in the cellular tissue, the only safe plan will be to remove the limb beyond the emphysema. I cannot help thinking that the very frequent ill-success which made such men as Pott and Thompson decide against amputating in spreading gangrene may possibly have arisen from taking the external appearances, as the guide instead of the state of the internal parts, to be discovered by the touch. I am aware that, in a case of Mr. Lawrence's, he divided the parts about the shoulder joint, which were full of emphysema, and the patient recovered; but this only shows what the powers of nature may occasionally do—not what we may safely expect of her; and if we have the option of cutting beyond all feeling of crepitus, I conceive it will be right to do so for the sake of security, though, when we cannot even do this, Mr. Lawrence's case shows us that we need not despair, with a good constitution, of saving the life. The sloughs in my case were, I believe, the results of the attack of secondary inflammation of the stump, and therefore a mark only of the very irritable state of the system, not at all otherwise connected with the previous state of the limb. If, then, I am correct, the emphysematous feeling, not the external appearances, should guide us in the choice for the place for amputating—a point of practice which probably most surgeons are in the habit of attending to, but on which, as I find no directions in our authors, I hope my observations may not be now without value.

POST-MORTEM EXAMINATION

OF A CASE OF

SUDDEN DEATH IN A CHILD,

IMMEDIATELY AFTER

IMMERSION IN THE COLD BATH.

By J. NOTTINGHAM, Esq., Surgeon, Liverpool.

A. Dudding, aged two years and three months, had been unusually feeble from the time of his birth, and at a very early period of life was supposed to suffer from some disease of the brain, which was followed by partial paralysis of one side of the body.

The mother had been advised by some friend to dip the child in cold water, for the purpose of strengthening him. To this practice she resorted, and he had already been immersed on three successive mornings, the 26th, 27th, and 28th of May last, previous to the fatal event we are about to notice.

A small quantity of salt had been added to the water, but not immediately before it was used as a bath, and the vessel containing it stood in the open court-yard adjoining the house, and was exposed to

the rays of the summer's sun, so that the temperature of the bath was by no means very low.

On the 29th of May the mother awoke the child from its sleep in the morning, and immediately dipped it in the water, afterwards wrapping it in a blanket as before; but on looking at the face of the child, she perceived a great change in its appearance, and immediately sent for a surgeon.

My friend, Mr. Atcherly, visited the case, seeing the child about five minutes after it was taken from the bath, when "it was pulseless, pallid, and cold; it gasped two or three times and died."

I assisted Mr. Atcherly in the examination of the body on the following day.

When the cranium, thoracic, and abdominal cavities were laid open, one general observation was immediately inevitable—viz., that the contained viscera were in a state of remarkable hyperæmia, being what is usually called much congested.

We sought, however, in vain for any one organ, to the state of which the sudden death could be attributed. No injury of any particular viscus could be observed, nor was there any ruptured arterial or venous trunk to be found.

The liver appeared to contain a great quantity of blood, and the congestion of the lungs, in every part of their structure, was more strongly marked than was that of the brain.

The blood in the cavities of the heart presented but feeble traces of coagulation.

It is, perhaps, worthy of remark, that the fatal effect of immersion in water in this case took place immediately after the child was awoke from its sleep, or even before the waking was complete.

When we attend to the condition of the system during sound sleep, the remora of blood, if so it may be called, in the great viscera, the warmth of the blanket-clad surface, and the gently perspiring skin, we shall at once have some idea of the effect which the sudden shock of cold water at this time might produce; for the introduction of the body from a rare into a denser and colder medium, the nervous system being of a feeble character, to say nothing of the startling or fear, might be easily supposed capable of destroying so feeble an existence, the blood being driven towards the internal organs, and the previously heated surface suddenly chilled, and thus even greater cold risked from the evaporation in such circumstances likely to take place.

Liverpool, Dec. 19, 1841.

ON THE

TREATMENT OF PSORIASIS.

By J. TOOGOOD, Esq., Bridgwater.

Diseases of the skin are generally difficult of treatment and obstinate of cure. I have been in the habit of employing a remedy for many years in one particular affection, which is not in general use, with much success. It was first suggested to me by the late Dr. Willan, whom I met in consultation on the case of a gentleman who had been tormented for many years with a disease which had baffled every practitioner whom he had consulted (and they were not few), and resisted all the known methods of treatment. The following case, which I give in the words of the surgeon with whom I saw the patient, will illustrate the particular affection and mode of cure:—

"E. H., a girl about 16 years of age, who had been liable to slight attacks of psoriasis about three years since, after having undergone great bodily fatigue and mental anxiety, became the subject of a much more aggravated form of this disease than I had ever before witnessed. The skin of the arms, legs, and face, was first affected, and it very rapidly spread over the