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CASE OF DIPHTHERITIC PARALYSIS WITHOUT ANY PRECEDING HISTORY OF THROAT AFFECTION.*

By C. O. HAWTHORNE, M.B., C.M.

THE patient who is the subject of this communication is a boy of eight years. He was admitted to Ward I of the Western Infirmary on 26th August, 1893, complaining of weakness of his legs. At that date he presented symptoms which, I think, will be generally allowed to afford an ample justification of the diagnosis of diphtheritic paralysis. The muscular substance of the limbs generally was wanting in firmness, and though there was nowhere absolute paralysis, the voluntary movements of the limbs were decidedly deficient in power. When walking he was rather unsteady: the feet were kept wide apart, and only slightly lifted from the ground, and he was quite unable to maintain his balance when endeavouring to walk along a single plank. The knee-jerks were entirely absent. All the superficial reflexes were easily obtained, with the exception of the plantar, which were not very marked. Albumen was present in the urine. The boy was quite obviously anæmic, and the blood tested by Gowers' hæmoglobinometer showed only 55 per cent of hæmoglobin. The pulse, on admission, numbered 64, and the first twenty-two observations gave an average of only 71.8. If to these clinical facts there be added the statement of the boy's mother, that about three weeks before the date of admission she had noticed that the lad began to "speak through his nose," to have difficulty in swallowing, and that, when drinking, the fluid came back through his nostrils, there seemed to be no room for doubt that the case was one of diphtheritic paralysis. There are, however, certain

* This paper was read to the Glasgow Medico-Chirurgical Society on 6th October, 1893, the patient being shown to the meeting.

negative facts which must be put on record, though, in face of the positive aspects of the case, they do not, I think, invalidate the diagnosis. Thus, there was no anæsthesia or paralysis of the soft palate; no defect in the power of accommodation for near objects; no strabismus or paresis of the extra-ocular muscles; and no cutaneous anæsthesia or abnormal state of the muscular sensibility.

The special interest of the case arises when the history of the patient's illness is considered. This was obtained from the mother, and is as follows:—The boy was in his usual health, when, in the early part of June of the present year, he ran a piece of tin into his left heel, producing a sore which gave some little trouble. In the middle of June the mother, with the patient and three other children, went from home to a country district in Ross-shire, and whilst there the boy's foot for a time became much worse. He was, however, never confined to the house, and after some weeks the sore on his foot healed. It was not until the early part of August that his present illness commenced. At that time his mother observed that he began to betray some difficulty in walking, and at the same time his voice acquired a nasal quality, he "gulped" when swallowing food, and fluids returned through his nostrils. The latter symptoms disappeared in the course of a fortnight. Neither the patient, nor any of the other children, at any time, suffered from sore-throat, and the mother considers that they were all in very good health during their stay in Ross-shire.

In the light of this history, the question may perhaps be raised whether, in spite of the symptoms, this case is really one of diphtheritic paralysis. I think that question must still be answered in the affirmative. Its close approximation as regards its positive aspects to the diphtheritic type, and more especially the paralysis of the soft palate, the absence of the knee-jerks, and with these features the existence of albuminuria, leaves no other interpretation open.

If, however, this conclusion involves the admission that the boy has had diphtheria of the fauces or neighbouring parts, obvious difficulties arise. No doubt paresis, extensive and severe, may follow very mild attacks of diphtheria, and indeed there seems a general tendency to believe that the severity of the ensuing paralysis is rather in inverse than in direct ratio to the original inflammation. But it is certainly exceptional to find that there has been no complaint whatever of the throat before the onset of the paralysis; and especially to learn that the other children in the family,

with whom the patient was living and sleeping, entirely escaped.*

On the other hand, it may be suggested that the original diphtheritic inflammation was manifested, not on the mucous membrane of the fauces, but on the surface of the wound in the boy's foot. Such a view is at least possible, for there are several cases of similar character on record.†

In this particular instance it is, of course, impossible now to determine where the original specific inflammation occurred, or even indeed if any such event preceded the paralysis. But there are certain features of the case which lend some support to the suggestion that the patient had a diphtheria of the wound in his foot, rather than of his fauces. First, there is the absolute and complete absence of all history of sore-throat, and the further fact in the history, that the weakness in the lower limbs was observed not after, but at the same time as, the paresis of the soft palate.‡

Then, in so far as deficiency in the superficial reflex irritability existed, this was confined to the plantar reflexes. Again, anæsthesia of the fauces and neighbouring parts was not present, though it must be remembered that there was no opportunity of examining the patient until all evidences of paresis of the soft palate had disappeared. On the whole, too, it is, I think, easier in the light of such a suggestion to understand the complete escape of the other children. But in any view the case seems noteworthy, as showing it to be possible to have a paralysis of the diphtheritic type without preceding symptoms, not only not recognised as diphtheria, but not even giving the patient any ground for complaint, nor attracting the attention of his friends.

* I have seen and examined the other children. All are free from any evidence of throat affection and paralysis, and in each child the knee-jerks are quite readily obtained.

† See *Med. Times and Gazette*, 8th December, 1866, p. 609; *British Med. Journ.*, vol. i, 1889, p. 1,291.

‡ In the cases of paralysis following diphtheria of the skin, reported by Trousseau, the limbs seem to have been affected as early as the fauces (*Fagge's Medicine*, second edition, vol. i, p. 275).

