a complete trial, and that reports that may be published before long may settle definitely the question whether in chloral-hydrate we have, or have not, a remedy of efficacy in malignant cholera.

ON ULCERATION OF THE FRÆNUM LINGUÆ IN PERTUSSIS.

By WILLIAM N. MACCALL, M.D.,

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THE occurrence of this ulceration, and its value as an aid to the diagnosis of whooping-cough, have received so little notice in this country, that I read with pleasure the observations of Dr. Elliott of Bristol in the JOURNAL of September 7th. Essentially, his experience confirms my own, and the only point of material difference between us is that I do not agree with his theory as to the relationship existing between this ulceration and whooping-cough. To this point, which has little or no practical bearing, I shall refer later.

The subject was written upon as far back as 1844 in Germany, and about ten years later in Italy and France. Since then, frequent references have been made to it by Continental writers. It first came under my notice during an epidemic of whooping-cough which prevailed here in the winter of 1869-70. I then carefully noted the condition of the frænum linguæ in all children suffering from coughs brought to the Clinical Hospital, where I was at the time house-surgeon. The results are to be found in a paper published in the *Glasgow Medical Journal* for February 1871. Since that time, I have usually observed the condition of the frænum linguæ in cases of pertussis. The result has been to confirm the conclusions I then formed, but, as I have not kept any statistical record, I may be pardoned for making a few extracts from my paper, bearing upon the observations of Dr. Elliott; the more so, because, if the paper have escaped the notice of Dr. Morton and Dr. Elliott, I may, *à fortiori*, assume it to be unknown to most of the readers of the BRITISH MEDICAL JOURNAL.

"I may premise that I did not find the ulceration in any case which did not prove to be pertussis, and therefore in the numbers given I have confined myself entirely to cases of that disease. Out of 252 children suffering from pertussis, in whom, without any selection, the condition of the frænum linguæ and adjacent parts was noted, the ulceration was found in 111, or about 44 per cent. In the great majority of the cases (*i.e.*, in 105 out of the 111) it was situated on the front of the frænum, and its presence in another situation was usually associated with some irregularity of the teeth. In three of the exceptional cases, the ulceration existed on the under surface of the tongue at the side of the frænum; in one of these, the central lower incisors were absent; and in another, they were very stunted; in the third, the condition of the teeth is not noted. In another case, where these teeth were set widely apart and the right was more prominent than the left, the ulceration appeared only on the right side of the frænum. In the remaining two cases, it existed under the tip of the tongue anterior to the frænum, the teeth being normally placed. One child presented, in addition to the ordinary affection of the frænum, a longitudinal abrasion on the dorsum of the tongue, corresponding with two decayed and rough upper incisors."

The theory as to the nature and cause of this ulceration, upon which I do not agree with Drs. Morton and Elliott, is stated in the next quotation.

"Bearing in mind the peculiarities of situation and the limited character of this ulceration, the observation of children during the paroxysms of coughing, forcibly suggests to us that it is due to a purely mechanical cause, and is not, as some observers maintain, a specific eruption. In most children suffering from pertussis, the tongue is protruded from the mouth, and the frænum becomes stretched, and rubbed in a slightly sawing manner upon the lower incisors, during the succession of rapid violent expiratory efforts, with occasional imperfect inspirations, and the final *reprise* which constitute the paroxysm. By the frequent repetition of this action, abrasion or vesication, and then ulceration, are produced."

"This idea of the causation is supported by other facts observed, which tend to show that the phenomenon is in some way connected with the presence of the teeth. Thus it is very rarely, in my own experience never, found in children before the appearance of the teeth, although pertussis affects them as characteristically, and often as severely, before the period of dentition as after it. On the other hand, it may be present at the earliest age after the appearance of the teeth, several of the children in whom I found it being from eight to nine months, and two of them only seven months old. And further, if present at all in older children who have lost the lower central incisors, it is not

on the frænum, but on some part of the tongue corresponding with the prominence of a particular tooth or teeth."

Dr. Morton has found the ulcer in one case where the child had not yet cut any teeth, and it is quite possible to understand its production in the manner described by me, even without teeth, under peculiar conditions of frænum or gums. But this is certainly very rare, and I myself, out of hundreds of cases that I have examined, have not yet met with it. It may be urged that if the mechanical theory be correct, we ought to find the ulcer in a larger proportion of cases; but its production in any one case would depend on the form of the frænum, the condition of the teeth, the severity of the paroxysms, etc. The manner of coughing is also an important element. All children do not protrude the tongue between the teeth in the way described; especially is this so with older children, who exercise more voluntary control over their efforts, and accordingly we find it less frequent among them.

The value of this sign as an aid to diagnosis may be briefly stated. Not unfrequently, from imperfect description of symptoms, or the existence of complications, we may be left in doubt as to whether we have pertussis to deal with or not. In such circumstances, the discovery of this ulceration gives certainty to what would otherwise remain only a probability.

"For, even granting its cause to be mechanical, in the sense I have explained, it is such a very rare thing to find in a child a cough, other than pertussis, of such a nature as to cause it, that we may regard it as characteristic of that disease, and accept without much reserve Bouchut's dictum 'that a child which coughs, and has this ulceration on or near the frænum linguæ, certainly has whooping-cough'. It has not, however, an equal value as a negative sign; being found only in a certain proportion of the children suffering from pertussis, and not in all, its absence does not prove that the case is not one of that affection."

Those who are interested in the subject will find details in the paper from which these extracts have been made, and in the writings of various authors there referred to.

ATTEMPTED SUICIDE BY CHLORAL-HYDRATE: RECOVERY.

By HENRY TIZARD, M.D., Weymouth.

I WAS requested on August 15th, at 12.30 P.M., to see Miss —, who was said to have taken poison of some kind between 8 and 9 o'clock the same morning. I was told that Miss — had been suffering from religious monomania for some time, her particular delusion being that her sins were so many and so great as to leave no possible hope of her salvation. I found my patient in bed, lying on her back, apparently in a sound sleep; pulse 80, regular, but small; respirations 28 per minute; pupils moderately contracted, but not altogether insensible to light. She had vomited some viscid yellowish-looking fluid, having no perceptible odour; and a frothy mucus was constantly oozing from her mouth. The symptoms somewhat puzzled me; but I considered they pointed more to poison by some salt of morphia than by any other drug.

By placing strong solution of ammonia under the nostrils and very forcibly pinching her, I could slightly rouse Miss —; but, on desisting, she immediately relapsed into insensibility. I attempted to give her strong coffee by the mouth, but found that my patient could not swallow, the muscles of deglutition being apparently paralysed. The urgency of the case induced me to send for assistance; and, on Dr. Griffin's arrival, I suggested that we should use the stomach-pump and employ electricity, to which he assented; and, whilst the necessary instruments were being procured, the fauces were tickled with a feather, and we further attempted to give an emetic of sulphate of zinc, but without success. We then used the stomach-pump, finding but very little in the stomach, which was freely washed out with tepid water; and at the same time we employed a Maw's electro-magnetic machine. Mustard poultices were also applied to the calves of the legs; and a pint of strong coffee was pumped into the stomach, but this was very soon rejected. Coffee was also given by the rectum. After the persistent use of faradisation for about an hour and a half, we had the great satisfaction of restoring our patient to consciousness; and, when able to speak, she told me she had swallowed, at 8 o'clock, two ounces of Corbyn's syrup of chloral-hydrate. This syrup contains, as is well known, ten grains to the drachm; so that Miss — must have taken one hundred and sixty grains of chloral-hydrate—almost one hundred grains more than is considered a full or, in many instances, a very dangerous dose.

I cannot but think that faradisation was the chief factor in averting