ON A NEW SYMPTOM IN WHOOPING-COUGH.*

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I DO not know whether the ulcer of the frænum linguæ, specimens of which I have had the honour of submitting this evening to the Society, has already been distinctly recognised anywhere as a symptom of whooping-cough; but I have for some time suspected it to be so, and I have availed myself of the recent prevalence of the disease to collect some observations which, meagre and imperfect as they are, will, I trust, suffice to satisfy you on this point.

The under surface of the tongue is a part of the body at which we very seldom look (and which is not, indeed, very readily examined in young children); and ulcers there might, for aught I knew, be common in a variety of conditions. My first step was, therefore, to carefully examine the frænum linguæ in one hundred consecutive cases, met with in dispensary and private practice, of which seventy-eight were children, and a good proportion suffering from stomatitis, sore throat, scarlatina, measles, diphtheria, syphilis, coughs of various kinds, and dentition, so that they afforded a fair basis of comparison. In only two cases did I find an ulcer of the frænum; and in one of these there was a doubt whether the case was not one of pertussis, while the other was a case of very peculiar cough, which had originally arisen out of whooping-cough. I then examined, in the same way, every case of whooping-cough which came in my way, and, thanks to the epidemic which is now prevailing, I have been able to make observations on eighty-one cases, and have found well marked ulcers in thirty-three, or nearly 41 per cent.

This result is in itself sufficiently striking, but it by no means represents the true proportion of cases in which an ulcer exists. Cases of whooping-cough are very difficult to follow up, especially in dispensary practice, and even in private practice slight cases cannot be kept under continuous observation. Some few died before there was time for an ulcer to develop, others did not come under observation till it might have healed, some were only seen once; and I have no doubt whatever that, if all the cases could have been properly watched for an adequate time, more than 50 per cent. would have presented the symptom. Out of those which I did observe pretty continuously, numbering forty-one, an ulcer was found in twenty-five, or 61 per cent.; while only in nineteen, less than one-fourth, did I satisfy myself by anything approaching to continuous observation that it never appeared.

Of the thirty-three cases in which an ulcer was found, one was first observed in the first week of the disease (according to the parents' estimation, which—unsatisfactory as it is—it is necessary in most cases to accept), 9 were first seen in the second, 11 in the third, 7 in the fourth, 2 in the fifth, 1 in the sixth, 1 in the seventh, and 1 in the eighth; this last being a case where the absence of the ulcer had been noted in the sixth week.

In twenty-two cases, or more than two-thirds of those which had ulcers, it was present in the period comprising the third, fourth, and fifth weeks, which we may therefore term that of its greatest prevalence. The longest period during which it was observed in any one case was seven weeks, from the second to the eighth inclusive.

It may, therefore, I think, be regarded as proved that a small white ulcer of the frænum linguæ, either round or forming a transverse furrow, is a symptom characteristic of whooping-cough, which is observed in fully half the cases, being found most frequently during the third, fourth, and fifth weeks, but occasionally appearing as early as the first or as late as the eighth week.

I regret I am not able to describe any definite series of appearances attending the development of the ulcer. All I have to say on this point is, that the slightest and probably most recent examples have seemed to me to have rather a transverse outline; while I suspect, but only suspect, that some slight pale transverse linear thickenings of the frænum, which I have sometimes seen when I expected to find ulcer, may be in reality early stages of the lesion.

My object to-night being simply to establish the existence of this symptom in whooping-cough, I shall say very little as to its significance or connection with the other phenomena of the disease. Indeed, I have next to nothing to say. My first idea was that it arose from tension of the frænum over the lower incisors in coughing; but I doubt if there be any such tension, and I have seen the ulcer in a child with no teeth. I do not think it has any relation either to the severity

of the cough, or the age or sex of the child. As to the former, I can adduce nothing but an opinion, the grounds of which cannot be represented statistically; as to the latter, the proportion of cases which showed an ulcer was, as regards sex, forty-seven females to thirty-four males, and at the various ages as follows: In the first year of life, 2 out of 11; in the second year, 10 out of 16; in the third, 9 out of 21; in the fourth, 4 out of 10; in the fifth, 6 out of 12; in the sixth, 2 out of 7; in the seventh, neither of 2; in the eighth, neither of 2.

A much longer series of cases, more uniformly kept under observation, would be required to warrant any positive statement as to frequency in relation to age; but the figures just given afford, I think, sufficient grounds for my negative conclusion. A probable hypothesis, which I shall merely indicate, seems to be that the ulcer is a result of reflex action; and certainly there is no lack of nervous communication through which the lung-irritation and laryngeal spasm, which are the essential features of the disease, might be reflected upon the tongue, and produce interference with normal nutrition. Were it not that this symptom is absent in so large a proportion of cases, I might be seduced by the too tempting hypothesis that we have here a central and leading phenomenon, analogous to the false membrane of diphtheria, or the rash of an exanthem, or the tubercles of plague or of leprosy, or even the lesions of fungus-foot. I am not so sanguine as to expect that the *materies morbi* of this erratic member of the zymotic group will be found in these ulcers; but I may suggest that inoculation-experiments would be safer here than in some similar questions, as the disease, although fatal in the first years of life, is comparatively free from danger in later years.

In conclusion, if it be asked of what practical use is the recognition of this symptom, I must reply, "of none at present", except (as I have more than once been enabled to do) to complete the diagnosis in an early or doubtful case of whooping-cough, which it is sometimes—in view of infection—important to do. A new fact, however, seldom remains entirely barren of results, and often becomes fruitful in wholly unexpected ways; and the acquisition of even so small a one as this is a distinct and permanent gain.

OCULAR CASES.

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CASE I. *Paresis of the Retina*.—April 26th, 1873, Miss S. complained of pain in her left eye for a week; the pain, however, was not constant nor very severe. Two days ago, she observed that the sight of that eye was failing, and she could not see to read with it; while this morning, when she shut her right eye only, she could not see the bright flames of the fire in the room. The eyes looked quite healthy to all appearance, both pupils were equal, regular, and active; the tension of both eyeballs was normal, but slight pain was complained of in the left eyeball when it was pressed. She could read No. 1 Jäger's test type with the right eye at eighteen or twenty inches distance; but with her left she could not see No. 24 Jäger. It was quite blind. Ophthalmoscopic observation revealed nothing. Both eyes were in the same condition, the media were clear; the retina, choroid, and disc in both eyes were quite normal, and looked the same in each eye by comparison. There were no hæmorrhages, nor exudations, nor cupping of the disc in the left eye to account for the serious loss of vision. She was perfectly well in every other respect, and could not account for the blindness, and thought her right eye was failing a little too; but, on being questioned, she owned that for some time back she had been working at point-lace, especially in the evenings, with gaslight. She was ordered to stop work entirely, to take as much open-air exercise as possible, to wear a green veil when she went out in the sunlight, and to go early to bed. A few drops of solution of sulphate of atropine were instilled into the left eye, and the alternative ordered to be taken internally.

R Hydrarg. bichloridi gr. j; potassii iodidi ʒj; infusi gentianæ co. ʒviij. Half an ounce to be taken three times a day.

May 1st. She could see a little with the left eye; and could read No. 24 Jäger.

May 8th. She could read No. 2 Jäger with the left eye. She thought she saw hazily with it yet—probably from the atropine that was used on the first visit. The ophthalmoscopic examination still showed nothing abnormal. She was ordered to discontinue the medicine, still to take plenty of out-door exercise, and not to read or sew for another week.

May 15th. She was cured; her vision was perfect; her sight has remained good since.

REMARKS.—On first consideration, it seems odd that the one eye

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