—the solid organs swollen and purple with excess of blood content, and, when cut, running out like overfull sponges. The splanchnic nerves, it will be remembered, run down within the thorax.

If paroxysmal tachycardia can be really determined by dilatation of the splanchnic area and the consequent greatly diminished supply of blood to the left ventricle, it is easier to understand the usually sudden manner of its inception and termination.

Other remedies suggested for paroxysmal tachycardia are atropine (by Dr. Herringham) and vascular dilatants (by Sir James Barr). It is interesting to note that, although in this case the blood pressure was low, yet the patient seemed to do decidedly better when on a mixture containing spirits of nitrous ether.

A RED LINE ON THE GUMS.

BY

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DURING the last three years it has been my privilege to examine a very large number of men (about 900) employed at works in which lead ores are handled, and with such an opportunity one would not be surprised at the possibility of finding some new feature associated with the poisoning symptoms classified under the heading of "plumbism."

It is astonishing what a large number of cases have been placed in the category of plumbism since the passing of the new Compensation Act, which, under circumstances associated with fewer temptations, both to the workman and his doctor, would most probably have been put down to alcohol, syphilis, rheumatism, or some such disease.

The workmen are drawn from a stratum of society composed of unskilled persons, who have been brought up amidst surroundings that do not conduce to any mental or moral elevation, with the result that their resistance to temptations of an alcoholic nature is of the feeblest. With a diminished income due to alcoholic excess, this class of workman does not obtain the necessary quantity of proper food to enable him to resist disease, which, if it be associated with the blue line on the gums, is most likely classified as plumbism.

What is this blue line? In a large number of the older "hands" one nearly always sees a dark, dirty line, which, with the application of a suitable tooth powder on a good toothbrush would rapidly disappear; this is not the lead line. The typical lead line is seen to be just under the surface of the edge of the gum, and situated in the papillae, and under a magnifying glass presents an interrupted appearance. These papillae in some cases become enlarged almost to the extent of rupture, and the question naturally arises, What is the cause?

The following case is very interesting as bearing on the question:

A. B., aged 29, has been engaged at the same works for about ten years. On August 2nd, 1909, he lost the sight of his left eye, which had only troubled him for a few hours previously by becoming excessively watery. He gave a history of an attack of colic (which may have been due to lead) in May, 1909, but which did not last long.

He is rather anaemic; the left eye is damaged by a haemorrhage into the anterior chamber, which completely interferes with his sight. There is no paralysis. On testing the saliva the potassium sulpho-cyanide reaction is well marked, and to those who have had much experience of this test such a fact will be surprising. On the gum is a marked blue line, with which is associated a line of very enlarged papillae, in many places enlarged to the extent of rupture.

Is this engorgement due to the presence of lead in the system? About two years ago, when examining the men at a works in the district, I was particularly struck with the fact that a large percentage of *their gums showed a distinctly red line*, in marked contrast to the men at other similar works, so much so that I drew the attention of Dr. Legge, of the Home Office, and Dr. Collis, one of the inspectors, to the matter, and the latter has corroborated my observation. This red line is, in my opinion, due to an enlargement of the papillae at the edge of the gum, and, peculiarly enough, was seen in lads who had been only fourteen to twenty-eight days at the works, as well as in the outside men, such as masons, whose contact with the fumes occurred only when the latter were diluted.

The works are situated on the bank of a river, and are nearly surrounded by works of many sorts, so that the atmosphere is most probably charged with particles of an irritating nature, and no doubt it is this source of irritation, especially in the case of boys newly arrived at the works, that causes the engorgement, to which the lead finds its way, and on which it leaves its mark.

The conclusion that one naturally arrives at from such facts is that the so-called lead line is no proof of lead in the system, but that it appears in workers whose gums have been irritated by particles other than lead.

The Lettsomian Lectures

ON

THE CEREBELLUM AND ITS AFFECTIONS.

DELIVERED BEFORE THE MEDICAL SOCIETY OF LONDON,

BY

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LECTURE III.

NON SUPPURATIVE ENCEPHALITIS.

NON-SUPPURATIVE encephalitis may occur in adults in association with infective diseases, but has been especially described in children after one or other of the acute diseases to which they are so liable. The mode of development of the acute ataxia in a child previously healthy, with the subsequent gradual improvement, after an attack of measles or some similar disease, are points that are highly suggestive of either encephalitis or acute degeneration, due to the action of some toxin on the nerve elements of the cerebellum. Such evidence cannot, however, be accepted without *post-mortem* confirmation, so that it is satisfactory to find that when some such cases have come to necropsy, although, as a rule, this has been at a remote period from the acute attack, the evidence of sclerotic changes in the cerebellum has been such as to justify the original diagnosis of encephalitis.

Prominent among those who have directed attention to this class of case in children is my colleague, Dr. F. E. Batten, who, in a paper on ataxia in childhood, brings out the main clinical features of the affection as it occurs in children. A child, previously healthy and of good physical and mental development, becomes ill of some acute febrile disease, which may or may not assume a definite recognized type, such as that of one of the exanthems. Loss of consciousness may supervene, but general convulsions are exceptional. After a few days, in which the child appears to be making a normal convalescence, it is sat up, but is found to be unable to maintain itself in this posture owing to loss of balance. The child's hands reveal marked incoordination, and, if supported on its feet, the lower limbs are found to be wildly ataxic. Moreover, some articulatory defect of speech may be noticed. The general health improves in the course of a few days, but the child continues ataxic for a time, after which recovery gradually takes place, and may be completed in a few months, or it may take two or three years before this result is reached.

Although the cases included in Batten's paper are open to the criticism that they are unsupported by any pathological data, in view of the fact that all the patients recovered, it will nevertheless be admitted that they are identical with other cases that have come to necropsy, in which evidences of encephalitis have been established.

No better example of this is to be found than in a case recorded by Clapton.

A child, aged 4 years, who had been previously healthy, was attacked by measles, after which she suddenly became unable to use her limbs or to talk. After remaining in more or less the same condition for about six months she began to improve, but even at the age of 15 her gait was still ataxic, and she could not use her hands properly. Death took place at the age of 33, when the cerebellum was found to be less than a third of the normal weight, and presented neuroglial proliferation, with