## LEAD-POISONING WITH PARALYSIS OF THE EXTERNAL OCULAR MUSCLES

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Paralysis of the extra-ocular muscles is a condition very rare in lead-poisoning. I recall seeing it in only one other case, that of a male attendant at the East Oklahoma Hospital for the Insane. He had to give up his work as a painter several years previously on account of his illness. When I examined him he had, as residual signs of the disease, a partial double wrist-drop and bilateral ptosis, more complete on one side, on which side also the internal rectus muscle was partially paralyzed, sufficiently so to interfere with his accommodation.

In the present case in addition to the paralysis of the right external rectus there were unusually widespread and intense atrophic muscle-changes and absence of basophilic degeneration and of the characteristic lead-line on the gums.

While the external rectus was only partially paralyzed, the paralysis was sufficient to cause double vision when the patient worked in a poor light. I have had several patients with slight or partial ocular paralysis in whom the double vision occurred only in dim light. I have never seen this referred to. Possibly it is due to the extra impulses necessary to accommodation in a poor light, causing a proportional overworking of the healthier muscles.

The usual symptoms of lead-poisoning are so well known and have been so ably described by a recent writer[1] that their repetition is hardly necessary. It might be well, however, to emphasize the fact that insidious cases of plumbism may go for a long period unobserved. Particularly when the occupation and life of the patient is of such character (as in this case) as to necessitate very little muscular exertion.

*History.*—Woman, single, aged 36, typesetter for last six or eight years, has not had any abdominal pain since an acute attack of doubtful character two years ago. Also she did not notice any weakness of her muscles until the present acute attack, beginning three weeks before the examination. She then complained of rheumatism, had severe pains in all her limbs, and her leg- and arm-muscles became weak. These increased until she became bedfast in a couple of weeks.

*Examination.*—Pupils were equal, regular in outline and reacted promptly to light and accommodation. The right abducens was very weak and the patient said that she had often noticed double vision when working in a poor light. At time of examination she had double vision on being tested in extreme lateral field. Almost all the muscles of the body seemed weak and wasted. Fibrillary tremors were present in the thigh- and shoulder-muscles. The arms were both very weak, the right more than the left. The forearm extensors were completely paralyzed on the right, but on the left the patient retained the power of extending the index-fingers and little fingers. The supinator longus was slightly impaired on the right. The right upper arm, biceps, triceps and shoulder-muscles were paralyzed. Reflexes were absent on right and very weak on the left. The left upper arm- and shoulder-muscles, while decidedly atrophied, still retained some power. The forearm flexor groups on each side were only slightly affected. Both legs were very weak, the patient being able to bear her weight with great difficulty and only when assisted. She could not rise from a sitting posture. There was double toe-drop and the atrophy of the leg-muscles, with the exception of the greater involvement of the foot extensors, seemed to affect all the musculature about equally. Reflexes present, but greatly diminished; no Babinski; no sensory changes nor tenderness of the nerve-trunks.

The blood examination did not show any basophilic degeneration.

The characteristic blue line on the gums was not present, though there was a peculiar blackish discoloration of the lower decayed portion of one or two of the teeth.

The patient's mental condition showed some deterioration.

1. Linenthal, Harry: The Early Diagnosis of Lead-Poisoning, THE JOURNAL A. M. A., June 6, 1914, p. 1796.

## FOREIGN BODY IN THE SUBMAXILLARY GLAND

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W. C. C., a soldier of the Twenty-Second Infantry, was on a maneuver problem near Texas City, Tex., Sept. 11, 1913. He plucked a piece of grass from along the roadside and put it in his mouth. A small piece of the grass, about ¾ inch long, consisting of the bearded seed-tufts, got under his tongue and entered the orifice of the left Wharton duct. The soldier felt a slight sticking sensation under his tongue, but did not realize what had happened, at the time. The submaxillary gland began to swell in about an hour, and in twenty-four hours it was twice the normal size. There was no acute pain.

The condition remained about the same from Sept. 11 to Nov. 27, 1913, the patient being free of pain in the interim. During this time he had been treated occasionally for a mild inflammation, with local applications of iodin, etc. Nov. 27, 1913, he began to suffer with pain and pressure symptoms, and was transferred to Field Hospital No. 3, for observation and treatment. Here his history was gone over carefully and he was observed for a few days. He suggested that the grass was the obstrusive agent, but the possibility of it having traversed the duct seemed so remote that we attached no credence to the soldier's statement.

The duct was explored for calculi and stenosis, but was found patent throughout its course. We were unable to determine what was the cause of the glandular involvement.

Dec. 3, 1913, the glandular tumefaction became more marked and there was extensive periglandular cellulitis, accompanied with fever and pain. We decided to excise the gland before suppuration ensued.

The gland was removed *in toto*, and when it was excised, a piece of grass (seed-tufts) ¾ inch long was found embedded in one of the ramifications of the excretory duct. There was slight necrosis of the glandular tissue, where the grass was imbedded. The concomitant cellulitis of the neck subsided in forty-eight hours, and the wound healed by first intention.

**Plum-Stone in Rectum Causing Inability to Micturate on Account of Pain.**—I was called to see a man, aged 34, who said that on the morning of the day on which he was seen, although he had frequent desire to urinate, he was unable to do so and the attempt produced sharp pain in the anus. in the anus became more severe with each attempt to void urine. There was no history of similar trouble. Abdominal examination showed a distended bladder and on rectal examination a plum-stone was found, lying point down between the sphincter internus and the sphincter externus, with the point embedded in the sphincter externus. Removal of the foreign body gave immediate relief and in a few minutes the patient voided over 30 ounces of urine. The plum-stone had been swallowed forty hours prior to the onset of symptoms.—W. F. DEY, M.D., La Grange, Ill.

**Anthropologic Research in Portugal.**—The facial index as studied on 585 craniums is discussed from various points of view in the big quarterly, the *Revista da Universidade de Coimbra*, 1914, iii, 314.