

## TWO CASES OF DISLOCATION OF THE EYE-BALL THROUGH THE PALPEBRAL FISSURE.

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The first case is one of cerebral gumma with exophthalmus so great as to cause a complete dislocation of the eye-ball.

This case is reported because of the many extraordinary symptoms which made the diagnosis difficult, among which was the extreme exophthalmus; and because of the patient's satisfactory recovery. The following notes are abstracted partly from the records of the Pennsylvania Hospital from the service of Dr. Morris J. Lewis and mainly from the records of the Orthopedic Hospital and Infirmary for Nervous Diseases also in the service of Dr. Lewis, to whose kindness I am indebted for the privilege of reporting the case.

The patient, S. L., age forty years, white, married, occupation housework, gives the following history:

**Family History.**—Father paralyzed at the age of sixty years and later died of pneumonia. Mother paralyzed at the age of forty-five years, and later died of diabetes. Balance of family history negative.

**Past History.**—She had the usual exanthemata as a child. In 1901 had rheumatism and intermittently since. In 1903 had a discharge from her left ear, the ear has discharged at times since and she has been somewhat deaf. In 1903 also, she had what she calls "water pox," probably poison ivy, and says her sister's children had it at the same time. A year later she had some "throat trouble."

She has been married 20 years, having no children born but one self-induced abortion. She will not admit specific infection.

On November 12, 1903, she came to Dr. J. K. Mitchell's clinic at the Orthopedic Hospital with a left facial palsy beginning six days before. Ten days previous she had caught cold after being overheated. The palsy got worse for three days, and then began to improve. At the clinic an effort to protrude the tongue was ineffectual and the tongue inclined to the left in the mouth. Food was collected on the right side of the mouth. She was treated and greatly improved.

In the year 1903 she states that she had a forward and backward tremor of the head, which soon cleared up, but she has had a recurrence since.

In April, 1905, she had what she calls a "stroke," involving the face only. The right side she states was first paralyzed and then the left.

July 12, 1905, she was admitted to the service of Dr. Lewis at the Pennsylvania Hospital. She came to the hospital in the ambulance complaining of pain in the back of the neck and inability to walk because of weakness. Her eyes were noticed to be prominent, and she stated that they had been somewhat so all of her life. She described attacks resembling petit mal, which came on suddenly with no aura. She uttered a cry, became set and rigid, her head twitched and she thinks she lost sight during attack, which would last only a few moments. She did not remember occurrences during this time, and would come out of them crying. Did not fall nor bite tongue. Had not had one of these attacks for over a year.

Nine weeks before admission into the Pennsylvania Hospital, she had pain starting at the crown of head and passing down neck. Was sewing at a machine when this pain first came on. These seizures of pain came with increasing frequency, since which her eyes have been more prominent and her deafness increased.

She has also had four or five chills during the nine weeks before admission.

The tongue protruded straight. Heart, lungs and abdomen practically negative.

The patient was nervous.

The case was diagnosed at this time as "Exophthalmus of unknown origin and brain tumor" followed by an interrogation mark.

While in the hospital her eyes became very prominent and on one occasion her left eye protruded to such an extent that it became dislocated from the orbit through the palpebral fissure. This occurred while a nurse was looking at her. The lids contracted behind the eye-ball.

Dr. Harlan was sent for and replaced the ball and stitched the lids together over it. After some weeks the exophthalmus was less and the stitches were removed. Never again was the exophthalmus so great as to cause this startling phenomenon. The attack came on so soon after the admission, that no ophthalmoscopic examination was made at the time.

On August 5, 1905, she was discharged from the hospital very much improved. She was in the hospital a little over three weeks. The treatment consisted mainly of sodium iodide and rest in bed.

Ten days after her discharge she was readmitted. The pain in her head had returned and her nervous symptoms had increased. Her neck was stiff, and her head drawn back. Her eyes were thought to be somewhat less prominent.

She was found to have anesthesia to touch, heat and cold on the right side of the face from a horizontal line through the center of the nose nearly to the vertex.

Her jaws opened with difficulty and the muscles of mastication seemed rigid. Her tongue protruded with difficulty and turned slightly to the right. Her knee jerks were plus. Her ear discharged—she fainted once while in the hospital.

She improved greatly in a few weeks. When discharged she had less anesthesia and less protrusion of the eyes. The rigidity of the neck disappeared. The treatment was strychnine in moderate doses and potassium iodide in large doses. Diagnosis same as former admission.

About two months later, on November 1, 1905, she came to the clinic of Dr. Lewis, at the Orthopedic Hospital and Infirmary for Nervous Diseases, complaining of severe pain in the jaw. She says the jaw appears to dislocate at times. Her mouth opens poorly and she frequently bites her tongue while talking. Has difficulty in chewing and swallowing and complains of general depression and weakness.

She is poorly nourished and has a cyanotic, asymmetrical face. Her eyes are very markedly prominent especially the left. She can close the lids over them upon attempt.

Her thyroid is moderately enlarged. Her pulse weak and 102 beats to the minute. Heart action regular. Temperature 101.2-5 deg. F. Respiration 22.

Knee jerks: Right exaggerated and left more so. There is no clonus. Dynamometer R. 20., L. 15.

With each wink of the eye there is a simultaneous fleeting, muscular contraction of the right angle of the mouth and right side of the chin.

The mouth is somewhat drawn to the right.

The cervical and upper six dorsal vertebræ are tender and painful. Pressure on the side of neck causes cyanosis and weakness.

She was admitted the next day, November 2, 1905, to the wards, and put to bed. A soft fluctuating swelling was found upon the scalp in the upper left occipital region. This was tender to pressure. It was opened two days later and found to contain pus. It healed promptly and temperature became normal. Pressure over the atlas and axis causes intense agony and the head is thrown back because of retraction of the neck, she is very nervous. Knee jerks found to vary in intensity but always present.

There is some tenderness over the liver. Diffuse enlargements are found on the upper right tibia, on the middle of the left tibia and on the inner one-third of the left clavicle. Bending the head back and forth causes tremor and pain.

There is "pins and needles" sensation on the upper lip.

Over an area from a line horizontal through the center of the nose to the vertex on the left side all sensation is diminished, but not absent, below it is hyperesthetic or normal.

On the right side of the face, and on both sides of the upper lip are hyperesthesia and hyperalgesia. There is a reflex movement of the muscles of both sides of the face upon stroking the upper lip.

There are spots of loss of heat and cold sense on both sides of the face. The jaw jerk is absent.

The next day, November 3, 1905, improvement was marked. The patient was brighter and more cheerful. Movement of the facial muscles was freer. Discharge from the ear ceased. Areas of disordered sensation have disappeared.

November 4 to December 13, 1905, she improved somewhat.

December 13, 1905. While sitting in a chair she fell forward in an apparent faint. She was perfectly unconscious for a few moments and recovered suddenly and cried. She had no bad after-effects from this attack. She said that she had had these "spells" before.

December 22, 1905. She went home looking well and like another woman. She had fattened 16 pounds, and her eyes were much less prominent. Her treatment in the hospital consisted mainly of rest, potassium iodide in increasing doses up to 200 grains daily, and small doses of Fowler's solution. She is to come to clinic.

The following special examinations were made while she was in the hospital.

Dr. Freeman examined her ears and found pus in the left middle ear and believed the ethmoid also involved. A few days later, November 7, he found the aural canal practically closed. On December 7, he found the canal more open, and the membranes dry and posterior superior wall in the proper position.

Dr. de Schweinitz made the following eye examination.

Vision. O. D. and O. S. 6—6. Edges of disk normal, no vessel change. Hyperopia of one D. No spots in fundi nor swelling of disks. Bilateral exophthalmus, no diplopia. Abduction causes nystagmoid movements in each outward effort. Convergence is normal. No von Graefe nor Dalrymple sign, no Möbius sign. No dislocation of the lids.

Her blood and urine were examined several times without finding any pathogenic change except that the hemoglobin on November 6 was 55 per cent.

She came to the clinic from time to time and showed steady improvement. On December 5, 1906, she was seen at her home by me. Her ears have not discharged for months. Her eyes are still less prominent. There are no nystagmoid move-

ments. Convergence is good. There is no disturbance of sensation of any sort. Her thyroid is full but not noticeably enlarged. Muscle movements are better on the whole right side of the face. Knee jerks are slightly diminished, but present.

She states for the first time that during 1903 or 1904 after she had had the left facial palsy, she fell on the ice and struck the back of her head hard enough to make her vomit.

The case presents many features of diagnostic interest. Three years ago she undoubtedly had a 7th nerve peripheral palsy which has gotten completely well. The forward and backward tremor of the head, which occurred also during this year (1903) and which returned for a while a year or so later may have been a precursor of her more serious troubles of 1905.

The so-called stroke she describes in April, 1905, as paralyzing first the right and then the left side of the face, and only the face, we can only ascribe to cerebral syphilis. She never admitted this infection, but the gummatous nodules and the effect of antisyphilitic treatment proved it. Her hypalgesia and hyperesthetic areas were peculiar and can only be explained by the multiple specific lesions.

The condition of her eyes would lead one naturally to think of exophthalmic goiter, but she hardly had enough other symptoms of Graves' disease to justify the diagnosis.

Her unconscious attacks were not epilepsy as there was no froth at the mouth, no tongue biting, no true movements, and no history of their occurrence previous or later. They somewhat resembled hysteria and if they were hysterical this condition was superadded and could not account for her other symptoms. There were reasons for not thinking these attacks simple fainting spells, as for instance, her rigidity. Atypical Jacksonian epilepsy must be considered, which in the writer's opinion, they probably were.

The scalp abscess was probably an infection through a hair follicle from her discharging ear. This abscess could not however account for the intense pain in the back of the neck, for this occurred before the abscess and continued after it had healed.

The great pain, the increased knee jerks and the retraction of the neck and stiff muscles, lead us rather to the conclusion of a specific meningitis.

There are indeed many points of interest in this case, the discussion of which would add too greatly to the length of this paper.

In conclusion it is fair to state that the woman is apparently well, performing her daily duties with comfort.

The second case is one of exophthalmic goiter in which

the eye-balls were dislocated through the palpebral fissure.

This case occurred in the service of Dr. Morris J. Lewis at the Orthopedic Hospital and Infirmary for Nervous Diseases, Philadelphia. I am indebted to Dr. Lewis for permission to report the case.

The patient, Miss E. C. B., aged twenty-six years, came to Dr. Lewis's clinic April 25, 1906.

Family history. Father alive, but "nervous." Mother alive but in delicate health. One brother well, and one has "spasms." Five sisters well though one had chorea as a child.

Past illness. The patient had the usual exanthemata. Had typhoid when ten years of age, and again when seventeen years of age. She had convulsions once when a child, lasting three days. Menses never troublesome. When nineteen years of age she noticed that her eyes were becoming prominent. Her ears discharged at this time also. About six months after this she noticed some enlargement of the neck. She has had difficulty in respiration, but less trouble now.

At present her pulse is 96. Her neck just below the chin is  $12\frac{3}{4}$  inches, and at the greatest part  $14\frac{1}{4}$  inches. She states that her neck was larger and that she was given Fowler's solution two years ago and again six months ago, which seemed to reduce its circumference. Her thyroid is markedly enlarged. She states that at times the exophthalmus has been so great that each eye-ball has protruded from its socket about six times, sometimes without known external cause and sometimes when wiping them with a handkerchief, etc. She reduced them to their proper position herself. Dr. Lewis at clinic touched gently the lower lid of the left eye, and to the surprise of all present the globe protruded beyond the palpebral fissure, which contracted behind it. Dr. Langdon immediately replaced the eyeball by manipulation, and makes the following report as to her eye conditions.

"Marked exophthalmus and eyes equally prominent. Palpebral fissures wide. Motions full and convergence good. Pupils equal and normal in reaction. Media clear and fundi normal. Von Graefe's sign present at intervals. Hyperopia O. D. 2 D. O. S.  $3\frac{1}{2}$  D.

She was admitted to the hospital April 29, 1906. Auscultation of her heart showed accentuation of the 2nd pulmonary sound, and the 1st pulmonary booming in character, otherwise negative. Her pulse while in bed ranged from 60 to 80 beats per minute. Her urine was normal. May 3, 1906, her hemoglobin was 90 per cent., red cells 4,940,000, white cells 9,000. June 6, 1906, she became hoarse, then almost lost her voice, also her ears were discharging. Dr. Freeman was called, he found the right ear drum almost gone and the left perforated. She had an acute tracheitis and her right vocal cord was

inflamed. Dyspnea was marked. Turpentine stupes to throat and inhalation of tr. benzoin co., menthol and creosote frequently administered, relieved her. She was quite ill for some ten days. Her temperature ranged from 98 to 100 deg. only. After this time her improvement was steady, and she was discharged August 25, 1906. Her thyroid had become smaller and her neck measured May 20, 1906, in its greatest circumference  $13\frac{1}{4}$  inches. About this time a mass of granulations was removed from her right ear and her hearing improved.

When she left her eyes were much less prominent and they never became dislocated again. She gained 13 lbs. in weight and her nervous system was much quieted.

August 29, 1906. She returned to the clinic still improving. She was given potassium iodide gr. ten. She is to be glassed at the University of Pennsylvania.

December 1, 1906. She writes that she has been working since October 5. Her neck measures in its greatest circumference 14 inches. Her eyes have been getting better all the time, and she concludes by saying "Everyone that has known my condition for the last eight years is astonished at my improvement."