

He cut out a frog's heart and bathed it in a five per cent. solution of neutral sulphate of quinia. This brought the heart to rest in diastole, but the expansion was no more than ordinarily occurs, and therefore Mosso does not believe that quinine can produce an exaggerated diastole.

Engelmann advances an ingenious theory to explain the mechanism of muscular action. He supposes that certain portions or segments of a muscular fibrilla become endowed with a higher absorbing power under the stimulus of nervous impulse, and that they thereby draw into themselves a larger amount of water from neighboring segments. By this means the muscle assumes a greater transverse diameter and a shorter longitudinal one, that is, it contracts. When the osmotic current tends in an opposite direction the reverse of this phenomena occurs, and the muscle elongates or expands. If this be true, then both muscular contraction and elongation are determined by osmotic force, and one may be considered as essentially active as the other, though they may differ from each other in intensity.

To sum up, it is evident that the heart exerts an aspiratory force during its diastole, and thus accelerates the approach of blood to itself, but different authors vary widely regarding the mechanism of this phenomena. A full index to the literature of this subject may be found in the *Revue des Sciences médicales*, tome ix. page 345.

ORIGIN OF THE ASPIRATORY FORCE IN THE CHEST.

Bernstein¹ has raised the question as to the moment and manner in which a negative pressure is established within the human chest. Evidently such a pre-sure cannot exist in utero, or it would draw the amniotic fluid into the lungs. To test this point Bernstein attached a manometer to the trachea of a still-born infant. Then, having inflated the child's lungs, he opened the chest wall, and found that they contracted with a force equal to 6 or 7 mm. of mercury. This shows that the first breath creates a permanent enlargement of the thoracic cavity. This increased space, he thinks, may result from the driving out of blood which cannot afterward return, or from the establishment of a new set to the ribs.

The latter explanation would seem the more plausible, and Bernstein found that the transverse diameter of the chest is permanently increased 1.4 mm. by inflation. He was unable to explain this inability of the ribs to resume their original position, but suggested that it might be due to some cog-and-ratchet arrangement of the costo-vertebral joint; or that the elastic expiratory agents of the chest might be so over-stretched that they assume a new set, and are thus unable to bring the chest back to its former position.

— Dr. W. J. Morton, of New York, has been invited to deliver the course of lectures on Diseases of the Nervous System in the University of Vermont, Burlington, during the present term.

— A correspondent of the *Medical Times and Gazette* says: "So long ago as 1733, Mr. Paul, a surgeon at Stroud, Gloucestershire, extracted from the kidney of a woman, by an incision through her back, a rough stone as large as a pigeon's egg, and made an entire cure."

¹ Pflüger's Arch., xvii. p. 617.

Hospital Practice and Clinical Memoranda.

TWO CASES OF HYSTERO-NEUROSES.

BY G. H. LYMAN, M. D.

Few physicians will find it difficult to recall puzzling and annoying cases of long-continued and painful affections, which, for want of a more definite name, they have ranked under the convenient head of neuralgia, or which, perhaps, the simulation being perfect, have with a more positive diagnosis treated a long time without success for cerebral, cardiac, pulmonary, or gastric disorder, until finally, their true reflex character being discovered by themselves, or possibly, to their annoyance, by others, relief is prompt and effectual. I could recount many such cases which have fallen under my own observation: a chronic dyspepsia, for instance, of many years' duration, which was immediately and permanently relieved by the simple rectification of a retroverted uterus; anæsthesia and threatened paralysis of one leg, lasting for months, due to a similar cause, as clearly proved by the result; an exhausting laryngeal cough, continuing half the night for weeks, and resisting all general and local medication, until its cause was discovered in an irritable uterus.

The following cases, occurring recently in my service at the City Hospital, are worth reporting as striking examples of unusual forms, treated for a considerable time without relief before their reflex character was suspected. For the distinction to be made between such cases and the ordinary manifestations of hysteria I would refer to the excellent paper by Dr. Engelmann in the second volume of the *American Gynecological Transactions*, my experience leading me to acquiesce in his statement that ordinary hysteria is "but very indirectly influenced by the condition of the uterus," meaning thereby its pathological and not its physiological condition.

CASE I. E. M. K., aged nineteen, unmarried, entered the hospital on the 12th of June, 1879, with slight febricula, which ran its course with no unusual symptom but a tendency to vomiting. July 3d she was transferred to another ward to be treated for leucorrhœa. She reported that her catamenia began at fifteen, and that she had been always well before entering the hospital. As will be seen later this was incorrect, and probably arose from her reluctance to speak of these details unless closely questioned in reference thereto.

July 11th. Has a slight, dry cough, and for the past two days it is noted that she is able to retain nothing but a little milk.

July 22d. She now says that all last winter she had pain and distress in epigastrium after eating, and that she vomited blood two or three times. No hæmatemesis noted since entrance.

July 25th. Food is now given only by the rectum.

July 29th. Able to retain but a teaspoonful of milk at a time.

August 1st. A digital examination was made, and the uterus was found to be in position. Some tenderness in the left cul-de-sac and iliac region; dysuria. For the next three weeks her condition was not materially changed; sometimes able to retain a little food, but generally not. Complains occasionally of dysuria and pelvic pain. Her symptoms were at-

tributed to gastric ulcer, and for this she was treated until she left the hospital, on the 23d. On the 18th October she was readmitted, the treatment having been continued outside. Her physician reports a continuation of the vomiting, but no blood, and no localized pain in the greater curvature; food never retained over ten or fifteen minutes. Bowels costive; micturition frequent (twenty-seven times in one day), with burning and tenesmus. It is now ascertained that for the last three years her catamenia have been irregular and painful, and on examination, October 29th, with speculum, through a resisting hymen, a well-marked endocervicitis was revealed, with profuse secretion from the os, the circumference being extensively abraded. The cervix was thoroughly scarified, and iodine was freely applied within and without.

November 6th. The erosion but little modified. Treatment repeated. *No vomiting since the first application.* Ordered beefsteak, which was relished and well borne.

November 15th. Has vomited once since last report, and is occasionally distressed by solid food. She has Valentine's extract, tea, toast, and beefsteak. Menstruation causes no increase of symptoms. Bowels torpid. A large furuncle upon nates.

November 28th. Has rejected her food two or three times only since last report. The erosion has healed entirely, leaving a decided congestion and profuse cervical discharge. To modify the nutrition of the parts more thoroughly fuming nitric acid was applied.

December 7th. Granulations from slough exuberant, and touched very lightly with nitrate of silver.

December 23d. Cervix entirely healed and looking healthy. Since last report has had a sharp attack of diphtheritic sore throat.

December 25th. No pain, no vomiting, and says she feels perfectly well, and is discharged to return to her home in Nova Scotia.

CASE II. A. B., aged twenty-seven, widow. This patient was admitted to the hospital for acute rheumatism November 23, 1879. She reports that for three months she has suffered from rheumatic pains in both legs, commencing in the ankles and extending to the knees, and of late to some degree to the thighs. For the past fortnight these pains have been worse, with the knees and ankles excessively tender to the touch, and she thinks there has been some swelling. Pain more severe at night. No specific history. Bowels torpid. Micturition frequent and burning. Catamenia irregular, intervals varying from one week to four weeks, very painful, and occasionally excessive. At the first visit the limbs were found enveloped in cotton. Temperature 101.2° F.; pulse 100; tongue coated. The slightest attempt at examination of the limbs caused such turbulent outcries that it was desisted from, and as the diagnosis of acute rheumatism seemed rational enough she was ordered salicylic acid, and for temporary relief subcutaneous injections of morphine. A week later (November 30th), as there was no apparent improvement under treatment, the cotton envelopes were carefully removed, against her vehement protest and apparent suffering. On exposure to the air intense clonic contractions of flexor tendons at ankles and knees occurred, and excessive rigidity of the muscles, causing great pain. The true nature of the case was now suspected.

December 10th. At the termination of a catamenial period examination showed the uterus to be very

tender. There was intense endocervicitis, with abundant discharge of muco-pus from the cervix. No uterine displacement. Vaginal walls somewhat injected. The uterus was swabbed with a strong solution of carbolic acid, and hot carbolized vaginal douches were ordered.

December 11th. The intense pains of the limbs, of some three months' duration, and simulating so completely acute rheumatism, *have disappeared*, and the patient flexes the thighs sharply upon the abdomen without assistance and without complaint.

December 12th. Cervical discharge continues. Vaginal injection repeated.

December 14th. Improved. Secretion from cervix diminished and less purulent. The cervical membrane freely scarified, and acid reapplied. Has had no recurrence of the muscular pains. Sleeps well without an anodyne.

December 31st. Has menstruated during the past week without complaint. The vaginitis has disappeared. There still being a slight discharge from the cervix, the os was again scarified and the acid applied for the last time. She remained another month in the hospital for rest and tonic treatment, and was discharged, well.

CASE OF CONGENITAL UNILATERAL COLOR-BLINDNESS.¹

BY OTTO BECKER.

THE occurrence of congenital color-blindness confined to one eye has not heretofore been indubitably established.

In 1868 Niemetschek² described a case of unilateral color-blindness, which by many authors is viewed as congenital. But Niemetschek expressly says that the visual disturbances of his patient, a man of forty-six, had appeared but a few years before his examination. Vision, both near and distant, was poor in both eyes. Exact data as to refraction and visual power were not given. The patient himself observed that the shadows in a folded white handkerchief appeared to him green. He suffered beside from a central scotoma, which seems to have assumed complementary colors. No difference between the eyes was discoverable by the ophthalmoscope.

By repeated examinations it appeared that the right eye perfectly distinguished colors, but that the left, with the polarizing prism, while it saw red and green correctly, perceived yellow and blue as red or pink and green or greenish. This eye must therefore, according to our present arrangement, be classed as blue-yellow blind. In this particular it is of special interest, even if we must consider the color-blindness as acquired, since acquired blue-yellow color-blindness has scarcely been observed.

Niemetschek connects the lesion of the left eye with a depression extending over the parietal bone and right half of the frontal, and caused by a former cavernous tumor.

The second case of unilateral color-blindness which is regarded as congenital seems also suspicious. Woinow³ observed in a lady of thirty-four years, with normal visual power and slight myopia, a peculiar dis-

¹ From Graefe's Archiv, v. xxv. P. 2. 1879. Translated for the JOURNAL by J. F. Head, Surgeon United States Army.

² Prager Vierteljahrsschrift, page 234.

³ Graefe's Archiv, v. xvii. P. 2, p. 346.