

Bromides are but negative aids to cerebral inhibition.

Additional evidence of the essentially sensory character of epilepsy is shown in that bromides are of but little avail in those cerebral affections supposed to be largely motor in character, such as myoclonus, paralysis agitans, athetosis and post-hemiplegic disorders of motility. The anatomical and physiological integrity of the large motor cells in the cerebral cortex, even after a life long epileptic career which may end even in fatal status, is convincing proof of the autonomy of these elements. The immunity of these cortical elements from great structural change, aside from exhaustive shrinking, has caused pathologists to classify epilepsy with the neuroses, and vestiges of this nomenclature still remain. With attention still directed during the last decade to the motor cells of the cortex, the detection of glial overgrowth was urged as the initial histo-pathological change of the disease process, and thus obscured the truly initial change in cell nucleus.

Probably the most practical lesson to be drawn from the study is that epilepsy is a diffuse lesion of the entire cortex.

An order of muscular march in the fit shows only the successive order of spread of discharge in the motor centers, and this remains identically the same for years, almost without exception; yet the disease steadily undergoes important modifications, shown in a continuous destruction of cortical elements. The aura, which is probably always subjectively sensory in type, gives us definite information of the sensory changes. In its absence the degree and character of mental changes indicate the disease progress. Some convenient means of accurately recording the latter would aid much in diagnosis, prognosis and treatment. To the diffusion of the cortical lesion in idiopathic epilepsy must be ascribed the almost certain failure of surgical interference, although focal symptoms still remain. The coincidence, however, of sensory and motor symptoms both in the Rolandic area in acute traumatic cases largely explains the good results of surgical treatment in the absence of an hereditary predisposition.

The ultimate disappearance of the involved cortical cell element is the most serious clinical phase of its pathology. This fact explains many of the permanent symptoms of the disease, especially the slowness, awkwardness and inco-ordination of muscle movements, which amounts in many instances to a paralysis in effect. The local and general exhaustion seen after local or general fits, especially in those parts which participate most in the discharge, are true exhaustion paralyses in type; but the chronic slowness, awkwardness and inco-ordination seen in long-standing cases are really of the sensory type in which the damage or loss of sensory elements not only permits cortical motor cell overaction as seen in the fit, but also leaves these motor elements uninformed of the normal nature and character of movements required. Analogous explanations hold good for tabetic ataxia.

The mental changes in epilepsy are analogous, if not commensurate, with the defective motility. However, to establish an adequate coefficient be-

tween the occurrence of fits and the degree of dementia is a difficult and complex problem.

Finally, we have in this study adequate evidence for the present empirical treatment of the disease in which the individual is given first attention. This consists, largely, to overcome hereditary tendencies and exclude toxic and autotoxic agents, in giving the patient a thoroughly detailed plan of diet, exercise, recreation, baths and sedatives comprised in the administration of bromides. In the light of the pathogenesis, the histo-pathological changes and their sequence which result in more or less prominent impairment of normal cerebral functions, the importance of the earliest treatment is obvious; the disease is also too profound in its changes for anything less than the most comprehensive attention.

In conclusion, we must say that the missing links of our knowledge of epilepsy consist in the fact that its pathogenic agents and the organic anomaly of the cortex, which constitute its predisposition, still hold the mystery of frequent relapses. By this study, however, we claim to have narrowed the gap between the terminal gliosis and the toxic and autotoxic agents in the disease pathogenesis, and we believe this is largely comprised in cell changes and those particularly of the nucleus.

#### DOUBLE UTERUS AND VAGINA.<sup>1</sup>

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Miss 2,370, age twenty-eight, single. A well-developed Scotch woman came under my care with the diagnosis of a discharging pelvic abscess needing freer drainage. Menstruation had always been regular and normal. There was at intervals free discharge of pus from the vagina which showed colon bacilli. There was also pus in the urine, though no bladder complaints. She was anemic with hemoglobin 50%, and heart murmurs. There was a question of trouble in the lungs.

Under ether the pulse soon passed 140, and became intermittent. The external genitals were normal. She had a tough normal hymen, and just inside it and to the right and anteriorly was what looked like a very small hymen, which admitted a probe one-half inch. What seemed otherwise like a normal vagina ended with a constriction the size of forefinger, beyond which was a small cervix and os, into which the writer could pass a sound only one and one-half inches. On the side of the above vagina just to the right of the median line anteriorly and beginning about an inch and a half from the hymen was a pouch into which the forefinger easily passed for two inches, where it met another cervix, into the os of which a sound easily passed two and a half inches. With a sound in each canal no touching was detected. By rectum the tubes and ovaries seemed normal, and there seemed to be a distinct fundus for each cervix both retroverted. No pus pocket was found, and owing to her condition further search was postponed. She gained

<sup>1</sup> Read before the Obstetrical Society of Boston, Feb. 16, 1903.

rapidly, and so satisfactorily to herself that she declined further investigation. Since leaving the hospital the writer has not been able to trace her.

Mrs. 374, an Assyrian, unable to speak English, of ordinary size and development, about thirty-five years of age. Married two months. Never pregnant. She came to my clinic at the Boston Dispensary May 5, with the story, through an interpreter, of abnormal flow and pelvic pain for four days. She refused to go to the hospital until May 13, when she entered the Carney Hospital, where the writer, owing to the kindness of Dr. Swift, had the privilege of operating and of reporting her case to-night.

The external genitals were normal. There was a double vagina, the right one perhaps slightly the smaller, with the dividing septum beginning about an inch from the introitus. There was a slightly smaller than normal cervix in each vagina. With a sound four inches in each os, no touching was detected. There were scant curettings, but free bleeding. The fundus was in good position, about the width of two, with a slight sulcus in the middle. Round ligaments and tubes came off as if from one normal fundus. There were general adhesions and double pyosalpinx. The appendix, both tubes and right ovary were removed. She had a very large and some six or eight inches too long sigmoid flexure, which was the first thing seen on opening the abdomen. Fresh smears from the tubes showed gonococci and a pure growth later. The husband told me he had gonorrhea five years ago, but was cured in fifteen days.

Among other peculiarities her left breast was covered with a flabby, tough, reddish-brown skin, several times the needed size; this condition extended upon the left arm from the breast and a similar small area of the same was upon the right breast. There were also queer patches upon the skin in other places, especially on the legs and feet. Two doctors from the Skin Department saw her, but had not seen such before and had no opinion to submit.

Dr. Storer can tell you the subsequent history of this case.

Mrs. 445, a third case, came to the writer because of dysmenorrhea and dyspareunia. She was seventeen years and eleven months old. Had been married nine months. Never pregnant. Menstruation began at fifteen, yet had never been regular, but occurring as a rule every six to twelve weeks, when she would flow from five to ten days, using about two dozen napkins and having some clots. Dysmenorrhea has kept her in bed during menstruation from its beginning. She had been operated under ether two years previously for her dysmenorrhea, but without any benefit. She had had "convulsions" since the age of two, and for some years a distinct hysterical story. She was in fair general condition, weight 115 pounds, which was a gain of 17 pounds in nine months. The clitoris and labia minora were unusually large, labia majora normal. There was a double vagina, with septum the entire length. Both were good size with the right perhaps a little the larger. There was a small cervix in each. The right canal measured two inches, the left two and a half. There seemed to be one ante-flexed freely movable fundus.

A fourth case of double vagina and cervix was seen by the writer in Quénu Clinic in Paris which, to look at, was exactly like my second case. Quénu was dividing the septum, and said there was a double fundus, but the abdomen was not opened that day.

A fifth case was examined with and seen, operated upon by a colleague. She was a large, well-developed woman. Married seven years. Never pregnant. External genitals were normal. There were no evidences of hymens. To inspection and touch the vaginae and cervixes were like my second case, except the septum began at the introitus. Each canal was three inches, and no touching with a sound in each. There was really one broad fundus, though there were two distinct knobs with a marked sulcus anteriorly and posteriorly. Both tubes were normal, and like the round ligaments came off as if from a normal fundus. The right ovary was normal. A lemon-size cyst of the left ovary was removed, and a suspension done for a retroversion.

#### A CASE OF UTERUS BICORNIS DUPLEX, WITH TWO CERVICAL CANALS ABOVE, ONE EXTERNAL OS AND STRICTURE OF VAGINA.<sup>1</sup>

BY W. L. BURRAGE, M.D., BOSTON.

M. C., single, thirty-one, a native of Prince Edward Island, first came under observation at the Carney Hospital in May, 1895. She complained of constant backache, worse at the catamenia, burning pain in the abdomen extending into the hips and down the thighs, and lasting for two weeks before each monthly period. Pain relieved on the appearance of the flow. She also had swelling of the feet, palpitation and dyspnea, leucorrhea constant. Catamenia every twenty-eight days, ten to twelve napkins, well soaked. Frequent micturition.

The diagnosis was made of endometritis and stenosis of the vagina, the vagina being constricted in its upper portion so that the opening admitted only a probe. The vagina was dilated, and the uterus curetted, and a rubber plug left in the vagina.

In 1898 the patient again applied for treatment at the hospital, having had only temporary relief.

She was etherized again, the stricture was dilated and the uterus was curetted, a large amount of hyperplastic tissue being obtained.

Additional symptoms at this time were tenderness in the groins on going upstairs, fainting spells just before the catamenia, and headaches. Her occupation was children's nurse, and she found it difficult to follow it.

Jan. 23, 1903, she entered the Carney Hospital for the third time, and came under my care. She had not been well since she was last in the hospital. She had more pain in the right side than in the left, and during the two weeks preceding each period attacks of abdominal pain lasting for twenty to forty-five minutes, and coming on half an hour to four hours apart. Vaginal discharge enough in amount to necessitate wearing a napkin, thick and yellow in color.

Examination showed a well-developed and nour-

<sup>1</sup> Read before the Obstetrical Society of Boston, Feb. 17, 1903.