

this matter up repeatedly. He does not believe this to be true, however, for as the result of work done there is to-day hardly an institution which has not a gynecologist connected with it. While there is unquestionably a relationship between the pelvic organs in woman and the brain, Dr. Manton does not believe that, except in possibly rare instances, disease of the former gives rise to mental alienation. Whenever insanity exists, however, and there is a local point of irritation present in either the pelvis or the abdomen, the mental condition is often made worse, and by removing the irritation, no matter how demented the woman may be, she will be made more comfortable and is more easily taken care of. In a large number of cases he has never seen an instance in which the mental condition was not relieved to some extent as the result of this kind of treatment. In his experience some 81 per cent. of insane women suffer from local disorders; but if 100 women who are walking about in apparent perfect health were examined it will probably be found that as large a percentage are suffering from some abdominal or pelvic disorder also. So that the finding of this percentage of local disease among insane women really means that a large number of women, sane or insane, have this burden to carry. Operations undertaken solely for the cure of mental disorder in insane women are wrong; but every insane woman suffering from abdominal or pelvic disease is as much entitled to relief from the somatic condition as is her sane sister. The late Dr. Rohé, who wrote a good deal regarding the curability of insanity in women through surgical means, appears to have been too sanguine, and Dr. Manton is not altogether certain about Dr. Rohé's cases. Another observer, Dr. Hobbs, was assistant physician at the London (Ont.) asylum under Dr. Buck, when he began his investigations. Hobbs' results and Dr. Manton's do not tally, and Dr. Manton is left to conclude that Dr. Hobbs deals with a different class of cases. Dr. Buck became very enthusiastic regarding the operative cure of insanity.

DR. F. F. LAWRENCE, Columbus, O., said that this subject was discussed in a symposium in Denver, when Dr. Joseph Price was chairman; also in Atlantic City in 1900. The question among alienists has been pretty thoroughly determined, that back of it all is an unstable nervous organization, and the question of attempting to cure insanity *per se*, by surgery, is somewhat far-fetched. As Dr. Manton said, the insane person is entitled to the same character of surgical relief that the sane person expects. The surgical condition may be causative in a sense in a great many cases. The possibility of a patient recovering her mental balance is greater if all physical suffering can be removed. If she has a bleeding fibroid she has a better chance to recover her health if it is removed. The late Dr. Carpenter and he had examined between 100 and 200 patients. In the neighborhood of 84 per cent. of the total number had some form of intrapelvic trouble. Of that number the history of only about 21 per cent. showed that the abdominal condition preceded the mental. He advocated surgery for all surgical conditions, whether in sane or insane; but in the absence of gross pathology insanity or other neuroses can not be reasonably expected to yield to any form of surgery.

DR. W. O. HENRY, Omaha, said that he was glad to hear the remarks of Drs. Manton and Lawrence, but that his contention is that these pelvic diseases in women of unstable nervous organization are the particular thing that often upsets the mind, and the curing of these things before they have upset the mind will, in such cases, prevent the breakdown. So long as no one can tell what insanity really is, he thinks that practical experience in cases that are cured counts for more than anything else. When he has operated on cases and five or ten years later the patients are still well, that counts for more than all the theory on earth. Of 28 cases he had 16 patients go home well. This is of real practical value. He does not claim that every insane woman can be cured by operation, but many can, and every insane woman should be given the benefit of all possible aid which can be afforded by the removal of all pelvic irritation. And finally, by curing these pelvic irritations in women of unstable nervous organizations, before insanity occurs, its development may often be wholly prevented.

THE NOMENCLATURE OF ENDOMETRITIS.*

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The word endometrium should be used to refer to the mucous membrane which lines the body of the uterus. The mucosa of the cervical canal is anatomically and physiologically a different structure, and although it may properly be called endometrium, usage more or less restricts that term to the mucosa of the body of the uterus.

The endometrium is intimately connected with the musculature of the uterus and its circulation is greatly influenced by changes which occur in the blood vessels of the myometrium and by the tonicity of the uterine muscle. The endometrium is continuous with the lining membrane of the tubes and with the epithelial layer of the cervix, therefore, it follows that the endometrium is influenced by all inflammatory affections, displacements, new growths and congestions of the genital organs.

By some it is held that the term endometritis (inflammation of the endometrium) should be applied only to those lesions of the endometrium which show histologically the products of an active reaction of the tissues to an irritant. According to this view, endometritis is always the result of infection with a micro-organism. By others it is held that there are causes of inflammation other than bacterial; and that a long continued inflammatory process, produced either by bacterial infection, or by mechanical or other forms of irritation, may produce hyperplastic or atrophic changes in the endometrium, without any histologic evidence of an acute inflammatory reaction.

Such a distinction results from a difference in the conception of what constitutes an inflammation and has little practical importance. Thus, what is considered glandular hyperplasia of the endometrium by the adherents to the first view is called glandular endometritis by the adherents to the second. It is our belief that it will lead to less confusion of terms to regard "glandular hypertrophy" of the endometrium and "atrophy" of the endometrium as the end results of a chronic endometritis, or as Sanger has aptly stated it, the residuum of an inflammation.

The classification of endometritis should be purely anatomic. In other words, it should be divided into the acute and the chronic forms. While acute endometritis involves all of the component parts of the endometrium indifferently, the chronic form may affect especially the glands or the stroma. Any classification of endometritis, based on etiologic factors, is faulty, because the etiology of chronic forms can not always be determined, and, therefore, the classification in many cases would be useless. There is also no relation in the chronic form between the cause and the form of the anatomic change in the endometrium.

A classification based on clinical symptoms, as catarrhal, purulent, or hemorrhagic, is also bad, for such terms might be easily applied to different stages of the same process, and a classification based on symptoms leads to an almost endless variety of forms.

The age of the individual also should be given no place in the nomenclature. Senile endometritis conveys no pathologic meaning; the terms juvenile or adolescent endometritis may be employed just as properly.

In conformity with inflammatory lesions elsewhere, we may speak of acute and chronic endometritis. The chronic form may further be divided into glandular and interstitial, when the glands on the one hand or the stroma on the other are especially involved. Pathologists may subdivide the chronic forms in order to indicate anatomic peculiarities, but this is not necessary for the clinician.

Endometritis, except in the acute form, rarely exists alone. It is usually complicated by inflammatory lesions of the cervix or of the pelvic viscera; lacerations of the cervix or of the

*Report of the Committee on Nomenclature of Endometritis to the Section on Obstetrics and Diseases of Women at the Fifty-seventh Annual Session of the American Medical Association, June, 1906.

pelvic floor; retrodisplacements of the uterus; chronic pelvic congestion; uterine or ovarian tumors.

Except in the acute form, therefore, which is incident to gonorrhoea or to infection following labor, abortion or instrumentation of the uterus, it has in itself little clinical importance. It should be considered and treated with the exceptions noted above, only in conjunction with the lesion which produces it. In many text-books this fact is not pointed out, and the student is led astray as to the frequency and the significance of the disease, and as to the necessity of its individual treatment.

CONJUGATE DEVIATION OF THE EYES AND HEAD AND DISORDERS OF THE ASSOCIATED OCULAR MOVEMENTS

IN TUMORS AND OTHER LESIONS OF THE CEREBRUM.*

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VARIOUS VIEWS DISCUSSED.

Within the past two years the causes of conjugate deviation of the eyes and head have repeatedly been the subject of controversy, especially by certain French writers. In 1904, Bard¹ advanced the sensorial theory of conjugate deviation, although this had been spoken of previously by Roux.² This theory has since been ably supported, especially by Dufour,³ and opposed by Grasset,⁴ Dejerine and Roussy,⁵ and others.

Chiefly through the kindness of Dr. Charles K. Mills and Dr. William G. Spiller I have had the opportunity to study 16 cases of conjugate deviation of the eyes and head, 15 of which are with necropsy, and I have attempted to come to such conclusions as to the causes of conjugate deviation of the eyes and head as the evidence in these cases will permit, together with the aid of cases in the literature.

Disorders of associated ocular movements occurring in lesions of the cerebrum will be discussed only in so far as they occur in association with conjugate deviation of the eyes, and in cases of hemianopsia due to peripheral or central lesions. The importance in clinical diagnosis of paralysis of associated movements of the eyeballs has been discussed only recently by Spiller.⁶

The literature is replete with instances of conjugate deviation of the head and eyes as a result of lesions in almost every part of the brain. Experimental investigations on lower animals confirm what has been said of the pathologic evidence, for it has been shown that electrical excitation of any portion of the brain, if of sufficient intensity, is productive of deviation of the eyes, or of the head, or both.

There is good reason for this. Perhaps no function is more highly specialized than that which is concerned with the movements of the head and of the eyes. These are constantly moved for one reason or another; the auditory and the visual senses probably playing the most important part in the determination of these movements.

* Read in the Section on Nervous and Mental Diseases of the American Medical Association, at the Fifty-seventh Annual Session, June, 1906.

¹ From the Department of Neurology and the Laboratory of Neuropathology, University of Pennsylvania.

1. Bard: *Semaine Médicale*, Jan. 13, 1904.

2. Roux: *Arch. de Neurol.*, September, 1899.

3. Dufour: *Rev. Neurol.*, April 15, 1904.

4. Grasset: *Rev. Neurol.*, July 15, 1904.

5. Dejerine and Roussy: *Rev. Neurol.* No. 3, Sept. 15, 1905.

6. Spiller: *Jour. Nervous and Mental Dis.*, July and August, 1905.

Such specialization of function necessarily needs and acquires a most complex cortical representation.

With our present knowledge of cortical representation we should expect a motor center for the movement of the head, a separate center for the eyes, and still another for the combined movements of the head and eyes. Within the past few years the cortical centers for all, or nearly all, motor function have been placed in front of the central fissure. This has been borne out by experimental and pathologic evidence. We should expect, therefore, that there should be but one motor center for each function, and that center anterior to the Rolandic fissure. It has been shown that movements which are performed conjointly by corresponding or correlated muscles on both sides of the body have a cortical representation in each cerebral hemisphere. Therefore we should expect a bilateral cortical representation for the deviation of the eyes and of the head.

Any auditory, visual, or olfactory stimulus will cause conjugate deviation. Touch, pain, or temperature stimuli will also cause deviation. Besides it has been held that reflex or automatic and voluntary impulses initiated independently of these senses may cause such deviation.

Taking up the subject of conjugate deviation of the eyes or of the head, or of both, as the result of anyone of the above-mentioned sensory stimuli, what is the cerebral mechanism of this conjugate deviation? Illustrating by the sensation of hearing, we presume that an auditory impulse is first transmitted to the auditory center in the temporal lobe, from here it is carried by means of association fibers to the motor center, from which motor impulses are transmitted to the nerve cells which supply the muscles concerned with the function to be performed. In like manner a unilateral motor center for the conjugate deviation of the eyes and head should be in intimate connection by means of association fibers, not only with the auditory center in the temporal lobe, but also with the visual center in the occipital lobe and with the olfactory centers in the uncinate gyrus and the gustatory center wherever situated, and with the centers for touch, pain and temperature senses in the parietal lobe. In brief, sensory irritation in any portion of the body will cause deviation of the head and eyes in the direction of the irritation through the correlated activities of the sensory and motor centers concerned. Not only that, but the centripetal fibers which transmit these impulses from the periphery to the cortex must be intact for the proper interpretation of these stimuli; and the centrifugal motor tracts must also be intact for the physiologic performance of their functions. Should any portion of this most complex mechanism be disturbed, the result would be failure in normal deviation of the head and eyes, the deviation depending entirely on the nature and location of the lesion.

The most recent writers on this subject, Cantonnet and Taguet,⁷ advance the idea of an automatic or reflex center for ocular movements in the optic thalamus. In support of this they quote cases of cortical lesions in which there was paralysis of voluntary ocular movement, but in which reflex or automatic movements were preserved. We have always regarded reflex movements of the eyes as best illustrated by the fact that the eyes will follow the moving finger or hand in different directions; and that similar deviation will take place in response to various sensory stimuli. It would, perhaps, be advisable if we were to define "reflex" and "auto-

7. Cantonnet and Taguet: *Rev. Neurol.*, No. 7, 1906, p. 308.