

4. Cleanliness. The Edison-Lalande battery has no odor, nor do any salts form on the top; so that it can be placed in any convenient part of the office without destroying carpets, or causing instruments to rust from the fumes which are usually found in the batteries in use to-day.

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The Edison Manufacturing Company have put up their batteries in handsome cases, and the equipment of each instrument is first-class in every respect. They have an exhibition here, and will be pleased to furnish any information that may be needed.

My only hope is that the next communication I make to our profession will be more fully in detail, and more profitable; thereby placing in their hands an appliance as an appreciable precision instrument to be made use of in our science.

118 E. Sixteenth St., New York City.

GYNECOLOGICAL OBSERVATIONS IN THE INSANE.

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The observations recorded in this paper were made at the Toledo Hospital for Insane during a part of 1890 and 1891, the opportunity being kindly given by Dr. H. A. Tobey, Supt.

Owing to the vicissitudes of politics, Dr. Tobey was succeeded by Dr. C. E. Tupper who kindly permitted the work to go on. To these gentlemen and their assistants is due the credit of facilitating in every possible way the difficult work. Acknowledgement is due Dr. Faber, one of the assistant physicians who kept a clinical record of the cases reported. Investigation in each case has been difficult, and it has been impossible to obtain reliable histories in some of them. In some cases patients had regained their normal mental condition sufficiently to give something of a correct history, but that concerning the reproductive organs in the application for admission to the hospital has been of little value. Such indefinite causes as "womb trouble," "menstrual derangement," "change of life," "child birth," etc., are usually given. While these indefinite conditions may have been factors in the production of insanity in each case, the special gynecological disease existing prior to manifestations of mental disease could only be guessed at. Whatever may be of interest in this paper therefore relates to existing disease of the reproductive organs, and the effect of its relief upon the mental condition rather than to the part those diseases play in the production of insanity. The annual report for the fiscal year ending Nov. 15, 1890, shows that of 130 first admissions, in 35, or nearly 27 per cent., the cause was attributed to some disease concerning the reproductive system, and for the year ending Nov. 15, 1891, of 130 first admissions 42, or more than 32 per cent. From these reports it is evident that a large proportion of insane women have gynecological disease, but whether these diseases produce or complicate insanity is not so clear.

June 1, 1892, there were 595 women in the hospital. Abdominal section had not been performed on a single patient so far as known, and only one case had

undergone a gynecological operation. The patient was a dipsomaniac, and was suffering from complete prolapsus uteri. She was the mother of one child born five years ago, and for three years prolapsus had existed due in part to relaxation of the pelvic floor.

Since the birth of her child she became a physician and began practice, the child in the meantime dying. Domestic troubles also culminated in divorce from her husband. She was subject to attacks of violent headache at or near her menstrual time, and would resort to morphia for its relief, large quantities of that drug being necessary to control it. The severe headache was attributed in part, at least, to reflex causes. Tait's "perennial extension" operation was done resulting in complete relief of the prolapsus. Within about three weeks after the operation she was attacked with acute mania, which was more or less violent, and which lasted for about three months, and ended in apparently complete recovery. Whether the insanity was due to the combined effects of disappointment in life, grief at the loss of her child, the more or less habitual use of morphine and stimulants, and the constant irritation of the nervous system from the prolapsus, or to the operation, is impossible to determine, but it is reasonable to conclude that the operation may have produced the explosion, the other factors having played an important part.

That insanity exercises a peculiar influence upon the sexual organs of women there can be no doubt. This may also be said of insanity in men. Mrs. Etta Kelley, a faithful and competent attendant at the hospital, ascertained that of 595 inmates, perverted sexual function was known to exist in 230—nearly 39 per cent. This number admitted to her that they practiced masturbation whenever the opportunity presented itself, which, however, is not often, as the cottage plan upon which the hospital is built makes suitable classification possible, so that a patient is rarely alone. A singular fact is that most of these patients were either married or widowed, and still more surprising is the advanced age of most of them. No reliable data could be obtained as to the present social condition of many of them, but the age was ascertained in most cases:

Twenty-one were between the ages of 14 and 30; 68 between 30 and 40; 82 between 40 and 50, and 19 between 50 and 60. Only two were 14, two were 21, three were 20, and one was 22. One was 67, two were 70, and the age could not be ascertained in the remaining 29. It will be seen that the greatest number (82) practiced this unnatural habit within and during the climacteric period, and that comparatively few were among the younger women. This contradicts the frequently repeated statement that unmarried women and young girls are so given to this vice. The comparison between sane and insane in this way may not be accurate, but in defense of the former it may be said that it does not prevail to that extent that is commonly supposed, and it is extremely doubtful if any pure-minded young girl has the slightest idea of sexual desire previous to her marriage. The truth of this proposition may be questioned, and it is admitted that it is not easily proven but it is based upon the fact that the sexual desire in women is latent as a rule, and that its actual existence, varying, of course in intensity in different women, is the result of development. Physicians are not unfre-

quently consulted both by young husbands and wives concerning the want of sexual desire on the part of the wife, who confesses that she has never experienced that desire as she is aware of its existence in others; that she is entirely passive, and submits to the approach of her husband only to gratify him. This uncultivated instinct in woman-kind fortifies her naturally stronger moral sense, the better qualifying her to fill her exalted position in life. A friend in discussing this subject, suggests that the young girl "does not encourage the desire, she is not tempted in any way to gratify it. It does not disturb or control her, but may she not feel it at times? The normal desire becomes abnormal under abnormal excitement and then she may reach the point of mental danger." That some girls may have experienced the desire before marriage, without having been excited may be true, but those instances are probably exceptional. The ungratified desire induces the habit of masturbation, and there is no reason to believe that the vice exists more frequently among sane than insane girls, and when it exists in the latter it is rather the result than the cause of the mental disorder.

It is a notable fact that religion as a cause of insanity goes hand in hand with sexual perversion, the reason, no doubt, existing in the emotional character of each. The foregoing statistics would suggest that whatever the cause may be that produces the mental disorder, it so disturbs, and perhaps stimulates those nerve centers that control the sexual desire, that masturbation is the result. Idleness and solitude, of course foster this vice.

The *Medical Record* of May 21, 1892, contains an interesting letter on the insane in Egypt, by Dr. H. F. Peterson, of New York, who informs us that nymphomania is very common among insane Egyptian women, and that clitoridectomy is performed on every Egyptian woman at an early age as a religious rite, which, however, does not seem to lessen the number among insane women with sexual element complications. Almost every patient has an excuse for the practice of this habit, which is only interesting as a curious delusion. One says that unless she does so she cannot urinate, another that certain women become men who outrage her, another that she was disappointed in love, etc. These patients have a strange propensity for putting foreign things into the vagina. On examination at one time a spool of thread, a stick, some paper, a piece of glass and a string were found. The patient was about 55 years old.

Many difficulties are encountered in ascertaining a correct clinical history, and the physical condition of the sexual organs in the insane. The record taken upon admission is the only reliance, as very few patients can give anything like a correct one of themselves, and one's own ingenuity must be relied upon for finding out the physical condition. Some patients actually refuse to be examined at all, others submit only under protest, and therefore constantly struggle, while in other cases in which the indications of uterine disease are quite evident an examination can only be made under anæsthesia. Reports have appeared from time to time concerning the effect of gynecological treatment upon the mental condition. Marvelous and in some instances magical effects have been reported. Within a year a case was reported in a Western medical journal, that had been

insane for years. The attending physician removed the uterine appendages with a view of curing the insanity. Immediately upon recovery from the anæsthetic the mental equilibrium was restored, and had remained so ever since—a period of several months.

The results of treatment in the cases herein reported do not sustain the position that the normal mental condition is restored upon the disappearance of the gynecological disease. Seventy-five cases were treated during the period of observation, and the following are given as a type, with the result of treatment upon the mental condition in each case:

Case 1.—J. C., an Englishwoman, 44 years old, married but has never been pregnant. Has been insane four years, cause unknown. The cervix uteri was eroded and the cervical endometrium inflamed. The treatment was by curetting and the topical application of tinct. iodine and carbolic acid, as recommended by Dr. Skene, of Brooklyn. Due attention was of course given to the general health. The disease entirely disappeared and the general health greatly improved. Within a year after treatment it was ascertained that the mental condition had only slightly improved, though the patient was apparently well physically.

Case 2.—N. B. O., American, aged 25, unmarried, insane a year. The record gave heredity as the predisposing, and her mother's death as the exciting cause. The type of insanity was suicidal melancholia. She was treated for chronic endometritis, complicated by acute vaginitis probably of specific origin. The disease entirely disappeared within a few weeks, and her mental condition so much improved that she was discharged.

Case 3.—K. S., Irish, 26 years old, married, the mother of one child 18 months old. She had been insane four months, the attack coming on very soon after a miscarriage, being in very feeble health at the time and very anæmic. "General debility" was given as the predisposing cause. The form of insanity was acute melancholia. The uterus was enlarged from subinvolution, retroverted, and there was unilateral laceration of the cervix extending to the vaginal insertion. The laceration was repaired, potassium iodide given, hot water vaginal douches employed twice a day, and the displacement corrected as much as possible with a glycerine tamponade. The uterine disease was entirely relieved in due time, and her normal mental condition was completely regained. Nine months after leaving the hospital she was still in good health. The prompt recovery from insanity in this case can be directly attributed to the cure of the uterine disease.

Case 4.—A. F., American, aged 33, married, mother of three children, had been insane five years. Her record gave "child-bearing" and "anæmia" as the exciting causes, but the predisposing cause was not given. She had chronic endometritis and unilateral laceration of the cervix. The uterus was curetted and the laceration repaired. The operation accomplished all that could be desired as far as the uterine condition was concerned, and the general health somewhat improved, but a year afterward her mental condition remained unchanged.

Case 5.—M. S., German, aged 24, married, no children, had been insane a year. Syphilis was given as the cause of her insanity. She was suffering from an acute vaginitis, of probably specific origin, which had extended to the endometrium. A solution of silver nitrate, 30 grs. to the oz., was applied once a week to the inflamed surfaces, and hot water vaginal douches were employed night and morning. Constitutionally she was given $\frac{1}{4}$ gr. doses of the mercuric protoiodide. She completely recovered from the disease and her physical health very much improved. There was also slight mental improvement, which, however, was only temporary. This was probably a case of syphilitic insanity, a cerebral lesion no doubt existing. The pelvic disease, therefore, was purely incidental.

Case 6.—M. E. M., German, 45 years old, married, never pregnant, had been insane twelve years with chronic melancholia. The exciting cause given in her record was domestic trouble, and the predisposing heredity. She suffered from complete procidentia uteri. Elytrorrhaphy was done upon the anterior vaginal wall, the sutures being of silk worm gut, and the perineum was extended forward after Tait's method. There was not the slightest union in the perineal incision, or possibly it may have been separated

by pressure from the impacted rectum, which the nurse had not discovered. The recto-vaginal septum, and the outer wall of the vagina, however had become a granulating surface, over which the edges of the skin were again coaptated after deundation, and secured with silver wire sutures. Perfect union and complete cure of the procidentia was the result. For two or three months the mental condition markedly improved, but a relapse occurred which left the patient but little, if any better than before the operation.

Case 7.—M. S., Irish, aged 53, married, no children, had been insane ten years. Cause of insanity unknown, type chronic melancholia. The uterus was normal and the abdomen very much enlarged from an ovarian cyst. Ovariectomy was performed from which she made a good recovery. On the afternoon of the day of the operation the nurse had occasion to go into an adjoining room. Though only absent two or three minutes, when she returned the patient was at the other end of the hall, a distance of 30 feet. Fortunately no harm resulted. Her general health greatly improved, but there was not the slightest improvement mentally.

Case 8.—M. M. B., American, aged 38, married, never pregnant, insane three years, and religious excitement given as the exciting cause. Type of insanity recurrent mania. She suffered from dysmenorrhœa, due to stenosis of the cervix uteri. This was treated by rapid dilatation, and repeated after the second menstrual epoch, she improved sufficiently to return to her home, but after two or three months she relapsed into the same insane condition, though the dysmenorrhœa was permanently relieved.

Case 9.—M. L. D., American, aged 40 years, married, mother of one child ten years old, had been insane six months with acute mania. Her record showed "uterine trouble" as the predisposing, and "menstrual irregularity" as the exciting cause. She suffered from chronic endometritis and papillary angiomas within the urethra. The uterus was curetted, and drained with iodoform gauze, the growths snipped off with scissors, and the paquelin cautery applied. She completely regained her mental and physical health. A report from her six months afterward stated that she had not been so well during her married life. In this case the exciting cause can fairly be attributed to the urethral disease, existing in an anemic and debilitated patient. A disease more harassing, and capable of producing a more complete wreck of a woman's nervous system seldom occurs. Disordered menstruation is the rule among insane women. Very few menstruate regularly and naturally, and some do not menstruate at all. The general health is usually broken down, and nutrition, of course, very much impaired. A diseased nervous system coexisting with such a condition would naturally disorder the menstrual function. Scanty menstruation is the rule, but menorrhagia sometimes occurs, when it is generally due to uterine disease.

While disease of the sexual organs exists in a large proportion of insane women, the effect upon them of the cure of those diseases hardly establishes any direct relation between the two conditions, except in occasional instances, and when that relation exists disease of the sexual system is often rather a result than a cause. The relief of any coexisting disease in an insane woman, whatever it may be, will be of benefit to her mentally just in proportion as her general health is improved. Pathological conditions are very much the same whether they exist in the sane or insane. Functional insanity may, of course, result directly from disease of the procreative organs, but that different types of chronic insanity are very frequently the result of those diseases may be questioned. The nerves and blood vessels are intimately related to the cerebral cell, and may interrupt or even prevent its development or reparation. For its life it depends upon the parent organism, and the cause of its perpetual change must exist in some way within the nerves or capillary blood vessels or both. Stimulation beyond the possibility of repair results in injury to the cell, therefore a pathological condition must result which interferes with the functions of the brain and insanity follows. Diseases of the reproductive organs in insane women and their management presents a vast opportunity

for the gynecologist, and further observation will no doubt establish the exact relation existing between those diseases and insanity. Every insane hospital should have its gynecologist, not only to provide better care for this unfortunate class of patients, but to lighten the burdens and cares of the superintendent, who in most institutions has more than his share. The future for gynecology in this field is full of promise.

PURULENT BRAIN DEPOSITS, AND PHLEBITIS AND THROMBOSIS OF THE CEREBRAL VEINS AND SINUSES FOLLOWING EAR DISEASE.

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(Continued from page 528.)

Case 47.—*Archives of Otology*, March 1882. Treated by G. S. Munson, of Albany, N. Y. Female, age 39, Left ear, chronic otorrhœa, has had partial left facial paralysis. Pain in left ear, vomiting, tinnitus aurium, no mastoid symptoms. Convulsions, right-sided headache, deafness, eustachian tubes closed, polypus in tympanum; its removal refused. November 15. Greater pain, delirium, unconsciousness, high temperature and pulse, coma. Convergent strabismus left eye, iris unresponsive. Death.

Autopsy.—Polypus of ex. meatus, semicircular canals carious. Abscess of middle lobe of cerebrum, directly above the semicircular canals, and an opening in the meninges and brain tissue connected the semicircular canals and the abscess.

Case 48.—*Lancet*, August 13, 1887. Treated by J. P. Gray. Age 26. Chronic otorrhœa, pain in and behind ear, facial paralysis, fever. Apathetic, half-comatose, paralysis and anæsthesia of left leg, delirium. Mastoid opened; no pus. Coma, hemiplegia, hemianæsthesia, death.

Autopsy.—Right cerebral hemisphere covered with pus. Perforation of dura mater upon posterior surface of petrous bone, carious opening through roof of tympanum, abscess between dura mater and petrous bone.

Case 49.—*Transactions American Otological Society*. Treated by O. D. Pomeroy. Otorrhœa; death.

Autopsy.—Abscess (diffused) of anterior and upper third of right lobe of cerebellum, carious condition of tympanum, carious opening through roof of tympanum.

Case 50.—*Archives of Otology*, June, 1889. Treated by James Finlayson and Thomas Barr. Male, age 22. Right ear, chronic otorrhœa, acute exacerbation, fever moderate, giddy, pain in jaw and behind ear, vomiting, chills, pain in frontal and occipital regions, pain in back, head retracted, right facial paralysis, constipation, stupor, vomiting, death.

Autopsy.—Congestion of pia mater, purulent exudation in frontal convolution of both sides, purulent fluid at base, in the region of the medulla. Brain adherent near right internal auditory meatus; the extreme anterior end of right cerebellum necrosed. Purulent inflammation at base of brain, granulations in tympanum and mastoid antrum, malleus and incus gone. The facial nerve was much disorganized and denuded of its bony covering by caries.