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ORIGINAL ARTICLES.

THE UNOFFICIAL GYNAECOLOGICAL TREATMENT OF THE INSANE IN BRITISH COLUMBIA.*

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My first attempt in gynaecological treatment of the insane was made on Jan. 5th, 1898, with such remarkable results that I have lost no opportunity of investigation in this direction. Although the work has not yielded the almost incredible results that were evinced by my first few cases, they have been fairly satisfactory, and sufficiently encouraging to justify the effort and to stimulate a more systematic and thorough investigation into the relations which exist between pathological conditions of the pelvic organs and abnormal psychic phenomena.

My examinations comprise 98 cases, and my operations 33. Of these, 42 examinations and 24 operations were in British Columbia and to these I shall confine my remarks.

None of these patients presented indications of assymetry of features, nor high arched palate, irregular ears, defects of speech, deafness, chorea, strabismus, i.e., waverings of eyes or twitching of facial muscles. In the cases operated upon no hereditary taint was obtainable.

The preliminary examination was at first conducted under an anaesthetic, but latterly this was as much as possible dispensed with, using it only for violent cases. It has been my practice to open the abdomen only when external examination reveals disease, but a more extended experience leads me to consider intra-abdominal examination an essential part if there be indications pointing in that direction with an absence of determinable disease elsewhere. With modern methods such an examination should have no mortality and but a few weeks confinement, and surely a disease that would remove a patient from friends and society perhaps for life justifies such careful investigation.

* Presented at the meeting of the British Columbia Medical Association held at Vancouver, Aug. 9th, 1900.

No.	Mental Condition.	History of Physical Disease.	Condition found upon Physical Examination.
1	Three years insane, at times violent mania.	Absent.	Cystic, prolapsed and adherent ovaries.
2	Melancholia for one and half years.	Severe back ache for six months.	Rup. perineum, varicocele of pelvic plexus,
3	Religious delusions for three years also suicidal mania.	Ovaritis fifteen years ago.	Retroversion with dense adhesions.
6	Melancholia for two months. Religious mania one month.	Pelvic pain for four years.	Adherent appendages; cystic ovaries.
8	Hystero-mania recurrent, one attack lasting six weeks.	"Blood poisoning" following miscarriage.	Perineal rupture, tubo-ovarian adhesion.
11	Melancholia for one month.	Absent.	Perineal rupture, enlarged uterus with adhesions.
13	Pre-menstrual mania with delusions fifteen months.	Absent.	Pelvic varicocele, adherent and cirrhotic ovaries.
14	Delusions for three weeks.	Pain in back and side since last child.	Retroversion with adhesions; salpingitis.
16	Mania and delusions with melancholia one year.	Caught cold after miscarriage.	Rup. perineum, prolapsed ovary.
17	Dementia of six year's duration.	Absent.	Cirrhotic ovaries with adhesions.
19	Mania with delusions two years.	Absent.	Retroversion with adhesions; ruptured cervix.
21	Melancholia ten years duration.	Specific vaginitis.	Cystic ovary; retroversion with adhesions.
24	Melancholia, suicidal mania two and half years.	Absent.	Rup. cervix, retroversion, adhesions, cystic ovary.
26	Melancholia with delusions and suicidal mania three weeks.	Appendicitis.	Par ovarian cyst; salpingitic adhesions.
28	Melancholia with delusions two years.	Pelvic discomfort for years.	Rup. perineum, salpingitic adhesions.
63	Delusions with mania, four years.	Absent.	Rup. perineum and cervix; retroversion with adhesions, piles.
64	Melancholia and delusions four years.	Absent.	Adhesion of clitoris, retroversion, varicocele, fungoids.
65	Delusions, menstrual mania six years.	Dysmenorrhoea and pelvic pain.	Retroversion, cystic, inflamed and adherent appendages.
67	Mania with melancholia, three months.	Childbirth.	Rup. cervix.
68	Delusions and mania, three years.	Absent.	Rup. cervix; Ovarian cyst.
69	Delusions occurring occasionally.	Pelvic pain, hemorrhage.	Enlarged uterus, endometritis.
77	Intermittent melancholia.	Dysmenorrhoea.	Enlarged, prolapsed and adherent ovary. Salpingitic adhesions.
78	Mental confusion, inability to attend to household duties, melancholia intermittently.	Pelvic pain for years.	Retroversion with adhesions, varicocele, cystic and adherent ovary.
73	Religious mania and delusions two years.	Absent.	Cervical polypus, retroversion, cystic ovaries.

No.	Treatment.	Results.	
		Physical.	Mental.
1	Double salpingo-oophorectomy.	Perfect result. Gain of thirty-five pounds in weight.	Recovered within 16 days.
2	Curettage and double salpingo-oophorectomy.	Normal.	Improved.
3	Removal of right appendage. Freeing of adhesions. Ventrofixation.	Normal.	Recovered within 21 days.
6	Double salpingo-oophorectomy.	Recovered from operation. Died from meningitis nine weeks after.	Unimproved.
8	Amp. cervix. Removal of cystic ovary and ventrofixation.	Normal.	Recovered.
11	Vaginal ovariectomy.	Died.	
13	Double salpingo-oophorectomy.	Normal.	Unimproved.
14	Curettment. Removed right and resected left ovary.	Normal.	Recovered.
16	Amp. cervix. Double salpingo-oophorectomy.	Normal.	Unimproved.
18	Curettment. Double salpingo-oophorectomy.	Suppuration in abdominal wound.	Improved for a time. Relapsed.
19	Amp. cervix; curettment; removed right appendage and left tube.	Normal.	Unimproved.
21	Double ovariectomy.	Normal.	Recovered.
24	Curettment; trachelorrhaphy. double salpingo-oophorectomy.	Normal.	Unimproved.
26	Curettment, double salpingo-oophorectomy.	Normal.	Recovered.
28	Removal of appendages.	Normal.	Unimproved.
63	Amp. cervix; ventrofixation.	Normal.	Unimproved.
64	Curettment, ligation of veins, ventrofixation.	Normal.	Unimproved.
65	Curettment, removed right ovary and left appendage.	Normal.	Recovered.
67	Curettment, trachelorrhaphy.	Normal.	Slight improvement.
68	Removed one ovary, resected other.	Normal.	Slight improvement.
69	Vaginal hysterectomy.	Normal.	Recovered.
77	Removed right appendage, resected left ovary.	Normal.	Recovered.
78	Removed right appendage, resected left ovary, ventrofixation.	Normal.	Improving.
73	Curettment; removal polypus, resect. ovaries, ventrofixation.	Normal.	Unimproved.

RESULTS. Out of forty-two cases examined in British Columbia but two presented normal pelvic organs, these two were unmarried. Of the twenty-four placed under treatment all but two had been married. Of the married ones all but three had borne children, and these three had salpingitic adhesions, giving evidence of former pelvic inflammation.

Of the different conditions found I report only such as pathological, that in the opinion of the ablest authorities, are capable of producing in those whose mental powers are intact, local pain, discomfort, or general systematic disturbance. Perineal laceration was present in five cases, cervical laceration in six cases. Retroversion with adhesions in seven and simple retroversion in three cases. Adhesions of the clitoris were noted but once, while salpingitic and ovarian adhesions were found in ten cases. Cystic ovaries varying from slight enlargement to that of a navel orange were found in eight cases, and par-ovarian cyst in one case. Varicocele of the broad ligament plexus was found in four cases, and uterine fungoids in one. By far the greatest number of any class were those of the inflammatory class. Next in order appears cystic disease of the ovaries.

Of the mental results I can report eight cured and two more all but cured, two very much improved, three slightly improved, one improving, in fact well, but too early to report. I have the satisfaction that, so far as I know, none have been rendered any worse by the treatment. Of the results physically all had normal convalescence from the operation but two, one had suppuration of the wound, and one died eleven days after the operation, the post-mortem showing acute cerebral congestion with a slight focus of suppuration at seat of ligature. One case died of basal meningitis nine weeks after the operation wound had healed and nurse discharged at the usual period.

With a gradually increasing knowledge of pelvic pathology, we realize that the sacrifice of normal tissue is by no means necessary. With modern methods resection of cystic ovaries with retention of the healthy part is preferred to the sacrifice of the organ as was formerly practised. It is very rarely that the whole of both ovaries is removed. Nothing is more certain that the removal of a healthy organs contributes in no possible manner to a restoration of the mental health. The pelvis in these cases must be subjected to the same treatment that would be given a patient whose mental condition is not in question. The disease and that only is to occupy the attention of the operator.

The post-operative treatment of these cases differs little from that of ordinary abdominal cases. Occasionally one requires to be bound to the bed, but in the vast majority of cases the nurse can control the patient's actions with but little trouble. The selection of the nurse is a matter of no little importance. She should be strong in mind and body and possess sufficient tact to enable her to cope with, conquer and dispel the slightest indication to former abnormal habits of thought or expression. An additional nurse is required to take alternate duty.

These patients as a rule are anaemic. As soon as the digestive system is in proper condition they are placed upon an easily assimilated ferruginous tonic. Regular evacuations and blood rich in hemoglobin are the best eliminators of ptomaines with which the tissues have been saturated during the years of impaired function and systematic depression.

The old proverb *mens sana in corpore sano*, has long been recognized as standard of normal health. But how close is the relation be-

tween the Mens and the Corpus it may be that few of us have even yet dreamed. Certain it is that as investigations into the physical realm are continued, startling facts are being constantly brought to light concerning the very intimate relation between the psychic and the physical. Is it not more than probable that we are just here treading the borderlands of a new world. Surely what we already know, though dimly, of the correspondence between the mental and the physical is sufficient to convince us that there are yet great discoveries to be made along that line. And let us not overlook the fact that to the active physician belongs the duty of jealous investigation in that direction. In fact he must be to the forefront in the scientific investigation of these opening problems or he will become the butt of ridicule for those whom he, in his complacent self-sufficiency, is inclined to designate as quacks and religious cranks, and for their increasing number of sympathizers among thoughtful people.

Prof. Foster tells us that "changes in what we call the body bring about changes in what we call the mind." Demonstration is unnecessary to show that the sexual system, while in direct sympathetic connection with other organs, has also a unique connection with the physical, nor to trace the relationship between a given psychological state and that of local pelvic congestion, and the channel through which this is made possible is the same channel through which a local pelvic irritation may produce abnormal cerebral activity with disordered cortical functions giving rise to and indicated by abnormal mentality. These influences from peripheral irritations of the sexual organs may at times be inhibited by a strong mentality, but they may, if severe and persistent, eventually overcome the strongest subjective effort. Given a certain environment of a strongly sexual character in a robust person, certain alterations of form and function follow in response to such stimuli in spite of efforts of the will to the contrary. To obviate the result the environment, or stimuli, which may be purely physical, must be removed. Now if such stimuli, not necessarily objective, are sufficient to produce organic change in defiance to the will, so may a local pelvic irritation or stimulus, acting upon the higher nervous centres cause abnormal physical action, also in defiance to will power, to cease only when the abnormal environment or peripheral irritation is removed. This is illustrated in the experience of my first case, who after her recovery gave me a somewhat detailed history of parts of her insane life, stating that she experienced and recognized within herself a force totally distinct from herself which compelled her to speak and act directly against her better judgment. This force, formerly called Satanic, is but the unconquerable abnormal physical reflex from a sensitive and diseased periphery, and the patient vacillates between reason and insanity as the force is subservient to and dominated by the will or becomes the ruling power in the organism.

With this conception of insanity comes a new responsibility, especially to those who had formerly considered its development the limits of their medical jurisdiction. We must now consider insanity but the indication of a serious physical lesion, demanding the utmost care and skill on the part of the attendant to discover, to determine and treat such

lesion. At times such disease may be easily found, but frequently and unfortunately it will elude his grasp. To consign to the asylum without giving the patient the benefit of modern therapeutics is unjust to the patient and cruel to the friends. To be sick may be unfortunate, but it is not necessarily a disgrace, neither should the occurrence of insanity in one member of the family be the instance of casting reflection, but so long as such erroneous conception exists in the public mind we cannot be too careful in this matter. To those in whose family this affliction has fallen, and who live in perpetual dread lest through some mysterious visitation that they also may become victims, we can bring hope, assuring them that the conception of "mental disease" as distinct from physical lesion has passed away, that insanity is not the result of some vague demoniacal influence, nor the indication of disfavor upon the part of an offended Deity, but the direct result of physical disease, and only follows where physical degeneracy leads. And to our female patients who, under the burden of life's duties and oppressed by its sorrows, harassed by the customs of society and irritated by disease, whose mentality at times indicates the result of constant peripheral irritation, whose reflexes refuse to submit to the subjective guidance and become temporarily dominant, and who reasonably look to us for relief, what shall we say? Is asylum life with its unpleasant associations, its stone walls, iron bars and uniformed keepers, the atmosphere calculated to restore jaded nerves, to recuperate a wearied body and remove local disease. On the contrary, admitting the utmost kindness on the part of those in charge, is not such an environment comparatively as irritating to a sensitive nature as her local disease is abnormal? Only after all methods have been exhausted, and not until then, should we permit our patients to be removed to the care of the state. Let us look at this matter fairly and if necessary in the concrete. In view of what has been accomplished in the modern treatment of insanity, and in view of the true conception of insanity, how would you or I act with regard to those who are nearest to us in ties of affection? Let us consider such symptoms as formerly but fingerposts pointing to the asylum as indications for the necessity of closer examination and more skilful treatment, remembering that every case committed is a painful admission upon our part of inability to locate or remove the physical disease. If such care were habitually exercised, the asylum commitments would be appreciably less.

However satisfactory it may be to report recovery after the removal of physical disease, it is not to be compared to that experienced when we also have restoration of the mental. To remove physical disease and at the same time to minister to "minds deceased" is the highest ideal of surgery.

It has been urged that disease of the genital organs in women cannot be a prolific cause of insanity, and the reason offered for the statement is because the ratio between the male and female insane is about equal. Have the causes of insanity among the males been determined, and has it ever been shown that disease of these parts is not a factor in its production? Are not these organs undistinguishable in their early embryological developments? Are not the nerve and blood supply analogous?

Are not the ravages of disease in the parts recognized by well known lesions, and may there not yet be much to be learned in this particular field? Again, who are the men who largely recruit the asylum ranks? Are they not the young men who in the period of functional activity have excelled in abuse of their sexual system? We shut our eyes to this too often. The excessive waste of highly vitalized fluids, with its accompanying exhaustion, the inflammatory conditions, acute and chronic, which are the product of the gonococcus, to say nothing of the grosser pathological results—abscesses, strictures, etc. Must nature bear this outrage without revenge? Our asylum reports state self-abuse as a cause of insanity in a certain proportion of cases. When an elongated and constricted pepucce, adhesions and retention secretions are a recognized cause of nervous disturbances in male children, it is but reasonable to suppose that undue irritation and exhaustion may cause the most grave nervous disturbances in adults, but when we have added to this condition one of specific infection, with all its train of results, it is within the limits of the probable that one cause of insanity in the male may be analogous to that in the female, and if the cause, then it follows that the treatment should be as direct and radical.

Lest any careless reader or superficial observer, whose thoughts follow but beaten tracks, and whose memory hovers over "mutilating operations upon the insane," "wholesale mutilation of helpless lunatics," and other absurd phrases, might conclude that it is within the meaning of this paper that the cause of insanity among women is found alone in diseased pelvic organs, or that surgical measures are advocated as a panacea for mental abnormality we wish to emphasize that no such erroneous conception exists either upon the part of the writer or in the minds of those who have appeared before the public as workers in this department. But one thing we do believe and shall advocate so long as there are additional worlds of conservatism to conquer: That the principles of surgery and humanity unite in demanding that the insane receive at least the measures of consideration and treatment that their diseases call for; that these hapless sufferers from pelvic diseases have extended to them the benefits of modern treatment; and that our insane mothers, sisters and wives receive treatment equally skilful to that given in daily practice by hundreds of our educated physicians. If this be done a small per cent. of the asylum population may be sent to their homes, households united, family ties restored, and given "beauty for ashes, the oil of joy for mourning, and the garment of praise for the spirit of heaviness." This is no idle dream, no strain of imagination, but a fact in our city. What has been done here can be repeated in any city in Canada. It is an opportune moment, in view of the evidence submitted, for the profession to unite in this new crusade and extend to these unfortunate invalids the measures of mercy that an enlightened sentiment desires and the spirit of justice demands.

In order not to prolong this paper I will give a brief history of but a few of the cases.

Case 1.—Mrs. —, a former patient, aged 35, of excellent family history, no hereditary taint, had been committed to the Provincial Asylum

during my absence in Europe. She had enjoyed excellent health until, after attending to her household duties and acting as nurse to her two children she became considerably debilitated. This, with the shock of the younger child's sudden death, precipitate intermittent melancholia lasting eight months. Symptoms of pronounced insanity with suicidal tendency developed. After a month's treatment under the care of a nurse she was committed to the provincial hospital for the insane, April 1st, 1895, where she remained until January 3rd, 1898. During this period she was at times violent, would attempt to scratch and bite her attendants, exhibited a most obstinate disposition, was considered by the late matron as one of the worst cases, and by the authorities as hopeless. No encouragement was given as to her recovery. The patient was placed under chloroform and a pelvic examination made. The right ligament was thickened, left ovary prolapsed uterus fixed, and perineum partially ruptured. Upon this data I recommended operative measures.

Operation. Right ovary was found cystic with tubal adhesions, left ovary adherent in cul-de-sac, fimbriated extremity closed. The appendages were removed, uterus also curetted. The operation was brief and practically bloodless; post-operative history normal; stitches removed on the twelfth day. The mental condition remained unchanged for some days. She persisted in sitting up in bed, tearing the bedclothes, and endeavouring to bite and scratch the nurses. It was necessary to tie her hands on either side of the bed, and place a heavy bandage over the lower part of the body. Upon the fourteenth day after the operation she became calm and recognized her mother. On the following day she conversed a little and appeared to appreciate the kindness of her nurses. Upon the seventeenth day the patient seemed more rational, did a little sewing, and took an interest in her surroundings. The following day I allowed her to see her little daughter, now a bright girl of eleven years, whom she had not seen since entering the asylum. The meeting was one not soon to be forgotten; it was one of those periods in a physician's life when his remuneration is beyond computation, an experience that lives. The patient acted and spoke as only a reasonable mother could. Day after day, as the physical strength increased, the mind became capable of more extended effort. Thirty-five days after the operation the nurse accompanied the patient to her home and remained with her a few days; and to-day the patient is managing her own household and attending to her social duties with all the reason and energy of her former self.

Case 2.—Mrs. C., aged 57; married; several children; no history of inflammatory action; family history excellent; experienced some financial troubles; for several years has suffered from pain in back and pelvis, and underwent treatment without relief. Melancholia developed, when she was committed to the asylum where she remained a year. Examination made under anaesthesia showed lacerated perineum laxity of the vaginal walls, but nothing else. Upon this examination I did not recommend operation. After conference with friends who desired nothing to be left undone, I concluded to explore the abdomen, and found large varicocele of both broad ligaments with calcareous deposits and cystic degeneration of the pelvic peritoneum. Appendages were removed with as much of broad ligament as possible.

Post-operative history normal, physical condition much improved, mental condition considerably better, so much so that she is managed at home, and takes an interest in domestic affairs. Does considerably sewing for grandchildren and, in fact, is much better than we expected.

Case 3.—Mrs. R., aged 52; no children. Had an attack of ovaritis fifteen years ago. Examination showed retroversion and general pelvic adhesions, insanity of a suicidal and religious type. She was in the asylum for three years. Operation, October 8th, showed adhesions of the clitoris, retention of the smegma on account of dense adhesions. Replaced womb. Insanity was completely cured and physical condition improved.

Case 14.—Mrs. D., aged 27, one child six years old, not pregnant since, convalescence from confinement slow, has not been strong since, had delusions of her husband trying to poison her; would frequently wander from home and be found in houses of acquaintances in different parts of the city. Examination without anaesthesia showed retroversion with adhesions, condition of appendages could not be made out. Operation; right ovary contained cyst the size of a walnut, was removed with its tube, also left tube removed; adhesions broken up. Convalescence normal, left hospital upon 18th day. For a week after returning to her home had occasional desire to get up and go out without her clothes on but since one month from operation has been perfectly normal mentally with the exception of two occasions for a few days previous to menstruation when she had a return of delusions.

Case 24.—Minn H., age 18. For several months had acted in an excitable and strange manner, worse during menstruation. For three weeks before I saw her had manifested decided mania at times suicidal.

Previous history. Had an attack of typhoid fever with inflammation of the bowels four years ago, complained of pain in right side increased by walking. Had leucorrhoea.

Examination; no hymen; retroversion with adhesions, right ovary enlarged, general salpingitic adhesions, profuse leucorrhoea.

Operative treatment, March 7th. Removed appendages with exception of part of right ovary, small par-ovarian cyst, also removed elongated and congested appendix.

Result: better for two days after operation, worse again but improved and at the end of four weeks was perfectly sound physically and mentally.

Case 65.—Mrs. —, never pregnant. Kindly referred by Dr. McNaughton of Vancouver. For six years complained of pain in side. For several years she suffered from mental confusion previous to and during menstruation. Became worse would throw away her clothing, would scream loudly, threaten suicide, etc. She had passed through the usual ordeal of treatment for misplacement, etc., etc. Examination showed masses upon both sides of the uterus with dense adhesions. Operation. Right ovary enlarged, cystic and containing mass of hard blood clot size of marble; left ovary enlarged, stroma destroyed, tubes disorganized by inflammation, universal adhesions. Convalescence normal.

Case 77.—Mrs. —, aged 27, two children. For fifteen years suff-

ered from pain in right side, worse the week following menstruation. Pain frequently excruciating. Local treatment gave relief only temporarily. For two years suffered from intermittent melancholia.

Examination showed enlarged, prolapsed and inflamed ovary with adhesions.

Operation. Removal of right appendage and restriction of left ovary.

Perfect recovery, physically and mentally.

Case 78.—Mrs. —, aged 33, two children. Complained of "womb trouble," for several years with severe back and headache. For last few years she would become mentally confused, would forget herself while engaged in domestic duties, and would be unable to continue the household work. Coupled with this were periods of melancholia.

Examination showed ruptured perineum and retroversion with adhesions.

Operation. Right ovary enlarged and cystic removed; left ovary cystic, resected; varicocele of veins ligated in two places and ventrofixation. Is progressing favourably but too recent to report.

These last two might fitly be called borderland cases, as they could hardly be included as coming wholly under the classifications suggested. Nevertheless they are evidently examples of the class from which the demented ranks are not unfrequently recruited and who require our most careful consideration.

Conclusions,—(1) That the prevalence of diseases of the pelvic organs, and the absence of any other determinable organic disease in many patients who manifest psychic abnormality, coupled with the fact that in a by no means small percentage of cases the removal of the pelvic disease is followed by a rapid return to the normal mental condition, justly lead us to the conclusion that between pelvic diseases and mental aberration there exists some correlation, but as to its exact definition we cannot yet speak.

(2) That in all cases of mental abnormality in both sexes which develop from the advent of puberty onwards, the condition of the pelvic organs with their functions should be made a matter of searching enquiry.

(3) That whenever possible before committment to the Hospital for the Insane, the pelvic organs should be examined and if any abnormal conditions be found such condition should receive appropriate treatment.

(4) That gynaecological treatment should be recognized as a most important part of Asylum therapeutics.

REFLECTIONS.

It has been stated that man is a complexity of delicately poised reflexes, but it is more than this since we have the power of the origination and direction of action and to a limited extent that of inhibiting reflex action. This something which controls we call the Ego. To the extent that the Ego directs the activities and controls the reflexes to that extent is the ideal human life exhibited. The ideal life as distinct from that of the mere animal is exhibited only when the activities of the organism are

less the result of reflex action than those resulting from the direction and domination of the Ego. So long as the organic structure is intact, so long as the system is free from disease, so long are the reflexes normal, but with a diseased periphery, nerve tract or centre, we expect abnormal reflex results. When this arc is confined to those parts of the body which are not intimately concerned in psychic phenomena, we have but abnormal physical reflex, as evinced in the exaggerated knee jerk of lateral sclerosis but if the reflex arc includes the basal ganglia whose function is to exhibit psychic reflex, and if there be organic disease at any point in the continuity of the arc then we must expect abnormal psychic reflex. The exaggerated knee jerk we call a symptom of physical disease, but we call the abnormal psychic result insanity while in reality it also is a symptom of physical disease, differing from the former only as the functions of the parts diseased are different.

As the Ego can realize that exaggeration or absence of the knee reflex is abnormal so also it is capable to a limited extent of recognizing abnormal psychic reflex.

In the early stages of mental disease is that of hallucination in which the patient is still conscious of the unreality of the psychic reflex, the second delusions in which the Ego has been limited and clouded, but yet exerts a measure of mental control, the third definite insanity in which the Ego has been completely subjugated by the intensity of abnormal reflexes. Insanity is the psychic sum of physical abnormalities. The focus of irritation may be in the blood, in any of the large ganglia or at the periphery of the sympathetic system in any of the large cavities or in fact wherever nervous tissue is found, but is very rarely found in the cause of sensory nerves.

1. To recapitulate we may conclude that insanity exists when the Ego is dominated and controlled by the influences from a diseased periphery, nerve tract or centre.

2. Since disease is subject to variation of intensity, a patient may oscillate between sanity and insanity as the Ego dominates and controls the organism inhibiting abnormal psychic reflex or is dominated and controlled by the intensity of such reflexes.

3. Since the intensity or degree of the abnormal psychic action is the measure of the sum of the physical abnormalities, the removal of a small part of the physical disease might result in the restoration of the balance of power to such an organism and diminish if not remove the abnormal psychic phenomena.

A CASE OF JACKSONIAN EPILEPSY WITH OPERATION.

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The history of the case which I have the honour to show this evening is as follows :—

R. W., farmer, aet 20, entered my private hospital on Dec. 16, 1898.

Family history.—Father and mother alive and well, aged 67 and 65 respectively. Has five brothers and two sisters living, all of whom are nervous, but their general health is fairly good. Patient says that