tioned: that one member of the sub-committee at which the most extraordinary phenomena were said to have occurred was soon after seized with an obscure form of paralysis; that another has become a victim of mental illness; and that a third has been confined in a lunatic asylum. It is certain, indeed, that while the belief in the sad mixture of imposture and self-deception indicates a want of capacity of observation and a weakness of judgment in all who accept the phenomena as spiritualistic manifestations, the attendance of the so-called *séances* is extremely dangerous to some minds. Dr. Garth Wilkinson, a well-known spiritualist himself, published a pamphlet, about fifteen years ago, entitled, "The Homœopathic Principle applied to Insanity: A Proposal to treat Lunacy by Spiritualism," in which he advocated the treatment of insanity by spiritualism, on the ground of its undoubted tendency to produce insanity. "It is a well-known fact," he says, "that spiritualism has the power of producing mental excitement at first in nearly all cases; and, in many instances, real insanity. My practice has furnished me with several such instances." We are not aware whether any success has followed this homœopathic method of treatment; but we certainly agree with Dr. Wilkinson in his experience of the effects of spiritualism on persons of an excitable and not very stable temperament. Those who wish to see the subject discussed from a scientific point of view, should read the able article on "Spiritualism," by Dr. Carpenter, in the last number of the "Quarterly Review." It is a pity, however, that so much of the article is a glorification of Dr. Carpenter by Dr. Carpenter.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *Italian Retrospect.*

By J. R. Gasquet, M.B., Lond.

Studi Clinici ed Esperimentali sulla Natura, Causa, e Terapia della Pellagra. Del Dr. C. Lombroso, Professore di Clinica delle Malattie Mentali. Bologna, 1869. Pp. 376.

Clinical and Experimental Studies on the Nature, Cause and Treatment of Pellagra. By Dr. C. Lombroso, Clinical Professor of Mental Diseases.

Those who read the Italian Retrospect in the last number of this Journal, may, perhaps, remember that Professor Lombroso's book was

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reserved for a separate examination. Mere excellence of treatment would hardly have led us to ask for further room in reviewing a work which deals with a disease happily unknown in England, and therefore of no practical importance.

Such was our idea on taking up this book; we had a somewhat vague notion that pellagra was a disease produced by mal-nutrition, combined with dirt and malarial miasmata, and that the symptoms of insanity, which frequently occurred, were of a very indefinite character. We soon perceived that Dr. Lombroso had completely proved pellagra to be a well defined disease, produced by a special poison, and that the mental phenomena, which are part of its complete evolution, are very interesting in themselves, and still more important as contributing another instance to the comparison of insanity with other diseases, which is such a promising branch of study.

We do not propose to give a full account of Professor Lombroso's work, but merely to sketch very briefly his conclusions, and to dwell only upon those points which would have a more particular interest for our readers.

The disease is now clearly proved to be due to the use of Indian corn as an article of food, as was long ago suspected from its being unknown in countries where maize is not eaten; but its being limited to such a comparatively small extent of the maize-eating countries, is evidence that some diseased condition of the seed must occasion it. We may put aside the *smut*, since maize so affected is never gathered, the "*Sporisorium maidis*" or "verdigris," which is much too rare to have any practical importance, and the "*sclerotium*," which is peculiar to Peru and Bolivia, although each of these is interesting from the poisonous effects it produces. The commonest alteration of maize is fermentation, from storing in damp places, with development of the *penicilium glaucum*. Dr. Lombroso has applied the following crucial tests which show, beyond a doubt, that this is the poison producing pellagra. He prepared a tincture of this substance, and administered it to 12 healthy people, in 10 of whom symptoms identical with those of pellagra occurred. One of the earliest results of the use of this tincture is increased appetite and power of digestion; this seems to be due to a curious property which the maize has of increasing the dissolving power of the gastric juice. To six other persons the maize was administered in powder, and the same series of symptoms were produced. Our author further establishes that not the penicillium, but the altered maize itself, is the active agent: and that this can be completely destroyed by boiling in lime water, and then roasting in an oven.

The symptoms vary in different parts of Italy, and Lombroso has therefore taken care to observe it in the several places where it is most common. He has studied in all 472 cases, and classes them under the following varieties:—

The worst, and rarest, is a rapidly progressing urinæmia, depending

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upon atrophy or degeneration of the kidneys; in another class of cases, rapid and extraordinary emaciation occurs; in others irritation of the urinary, genital, or digestive organs is the most prominent symptom. Among skin-affections, patches of chloasma and maculæ seem to be the earliest; sometimes the whole surface of the body becomes darkened; erythema, herpes, and eczema are also observed; but all of these are not so common as most persons who merely read of pellagra in books might suppose.

To proceed to what interests us more nearly; in many cases the nervous system is the chief sufferer. Sometimes, without any other morbid symptoms, patients suffer from constant vertigo, and considerable muscular weakness. Other motor symptoms are rare, but partial chorea, tendency to run forwards in a straight line, or to execute violent muscular contractions, have all been occasionally noticed in patients suffering from other cerebral or spinal symptoms. Epileptiform convulsions, common in the Milanese provinces, are rare elsewhere; tremor, like that of old age, is sometimes observed, and in a few patients paraplegia has been seen. In four cases Lombroso noted difficulty of speech, as in general paralysis. Almost all these grave symptoms occurred in apparently well-nourished persons.

The sensibility of the skin to painful impressions, as tested by means of Ruhmkorff's induction-coil, is less than in health, particularly in the palms, forehead and nucha. Among subjective sensations, the commonest by far is a feeling of heat or scalding in the hands and feet, sometimes over the whole body. This persists through the entire course of the disease; pruritus is very frequently complained of, and sometimes formication or numbness. The commonest neuralgia is violent headache, which is increased by heat or by standing, and is generally unilateral, sometimes accompanied by heat of the face and dilatation of the pupil on the same side.

Deafness, especially of one side, is common; but the only one of the organs of special sense which is particularly affected is the eye. The ocular symptoms, as will be seen, are very similar to those observed in general paralysis, which they resemble also in being generally unilateral. One eyebrow or eye very frequently seems lower than the other, and ptosis is not uncommon. In 28 cases the pupils were notably unequal, the right being almost invariably the larger; in 74 cases the pupils were dilated; in 28 contracted, these last being almost all old people. Injection of one conjunction, and pterygion, generally on the right side, are noticed; muscæ volitantes, diplopia, and photophobia are very common.

The ophthalmoscope shows evidences of retinal disease in about two-thirds of cases; in the early stages the vessels appear to be varicose and tortuous, in the latter, atrophy and anæmia of the papilla occur. Insomnia is not uncommon, while occasionally the opposite state, somnolence, is noticed.

We must dwell at greater length upon the character of *pellagrous*

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insanity, and here we cannot do better than quote Professor Lombroso's own words:—

"It seems to me that one characteristic of many suffering from pellagra—even if sane, and still more if insane—is a greater moral impressionability; a slight insult, the threatening of some trivial danger, completely carries them away, although they, perhaps, appeared before to be of sound mind. For example, a woman believes herself to be lost, because she has missed mass; another person is in despair and goes mad, because he has lent a pistol to a friend, who will not return it; a woman hears her companions laughing at her dress, and becomes insane from grief; another, merely because her husband, a fisherman, is a few minutes late, breaks out into violent mania.

"This character is common to pellagra, alcoholism, and the early stage of general paralysis, and obeys the law, that the weaker an organ is, the more readily does it suffer and become irritated. This is, perhaps, one reason why the public, which does not go beyond the first appearances, frequently believes that pellagra is producible by moral causes.

"Perversion of the affections is rare; on the contrary, I have more frequently noted their exaggeration; so that on this side again our patients resemble those suffering from general paralysis, who are almost always very affectionate towards their relations. Many of them complain of loss of memory, and of mental weakness, which ceases when they are in bed or lying down. In a few cases, on the other hand, I have observed that the disease itself, as is occasionally also remarked in ordinary insanity, quickens the mental faculties; this reminds me that several of the persons upon whom I experimented with the damaged Indian corn spoke of their increased clearness of mind."

Occasionally ordinary melancholia, more rarely monomania, occurs in these patients. Several examples of these forms are given by our author; but he agrees with Verga that probably such are cases of ordinary insanity grafted upon pellagra, as those who are most liable to pellagra—the pariahs of Lombardy—are also most exposed to all those causes of insanity which we know too well among our own poor.

"As a rule, even when the insanity of pellagra assumes a type, it approaches rather that of systematic delirium [qy. dementia] than of monomania; for instance—one of these patients finds it necessary to give one a card every moment, without knowing why; they will try to conceal their names from one, or say that they are engineers, or possess landed property, though perhaps confessing at the same time that they are drovers, or asking for an alms."

A real or apparent stupidity, an obstinate mutism, is tolerably common, which is ingeniously termed by Lombroso "a psychical catalepsy," seeing that the various faculties are there, and that some accident will frequently rouse such persons from their lethargy. Occa-

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sionally the opposite extreme of gaiety and great activity may be observed; or there may be an almost intolerable repetition of some phrase, cry, or chant. Mistaken use of words and aphasia have not been noted; there is occasionally some uncertainty of speech.

Many patients complain of hallucinations, evidently connected with morbid visceral states. "They are on fire; they have dogs in their stomach; they see water everywhere; they hear voices; they are dead." But, as a rule, their insanity is of "a misty, ill-defined, contradictory character, like that produced by old age or by anæmia, and differing in this point from general paralysis."

Refusal of food is a particularly common symptom, and is traceable to the various causes with which we are all familiar:—disordered states of the alimentary canal, the influence of real delusions, or mere obstinacy.

The most characteristic symptoms are those grouped by Italian physicians under the term "*hydromania*." Lombroso's analysis, which shows great subtlety and skill, decomposes this very curious group of phenomena into the results of several different causes.

In one set of cases water is sought and desired, because of the relief which a cold bath gives to the general feeling of heat and scalding. In other patients, the love of water seems to be dependent on the great pleasure which is derived from seeing its shining surface; something analogous is to be observed in young children and in demented patients. Thus, Dr. Lombroso quotes one patient as saying to him, "Nothing in the world pleases me so much as a small brook or pond; when I am walking and see any water, I cannot take my eyes off it as long as it is in sight, and at night I dream of seeing water." Such patients are often equally fond of the sight of fire, and will burn furniture or other things, in order to gratify themselves with a blaze.

Sometimes, on the other hand, there is a profound dislike for the sight or touch of water, which is not always explicable, but has been traced by our author in many instances to vertigo, produced by the sight of water or any other shining object in movement. Statistics also show that deaths by drowning are much more frequent in the provinces where pellagra exists, than in those where it is unknown or rare; in Lombardy and the Emilia, about 50 per cent. of suicides are by drowning, while in Central and Southern Italy the proportion is extremely small. This appears to be due either to a particular liking for water, or to giddiness coming on while the patient is taking a bath to relieve some of the symptoms of his disease.

The intermittence of the mental symptoms of pellagra is very remarkable. Acute phenomena are very rare in the colder months of the year, and become much more numerous in March, and continue to increase until August, when they diminish in frequency until October, when there is again a slight increase. Our author remarks that two sets of climatic influences are here at work; rapid barometrical changes, which seem

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particularly active in autumn, and mere elevation of temperature, which is the cause of increase in spring. This is a subject unfortunately too little studied by asylum physicians, though everyone must have noticed that rapid falls of the barometer and elevation of temperature have an effect in exciting certain chronic patients; but Dr. Lombroso is able to adduce observations of alcoholism in cold climates, which show that attacks of delirium tremens are far more frequent in spring than at any other time. He ascribes this effect of warmth either to the diminution of the phosphates in the blood, or to the action of warmth in diminishing the muscular tonus of the capillaries, as has been recently observed by Wolf.

We need not dwell at any great length on the pathological changes observed after death. The dura mater is frequently thickened, the pia mater opaque and congested; the cerebrum was found to be œdematous and softened in one-third of the autopsies, the softening being always most notable in the neighbourhood of the fornix; in one sixth of the cases the cortical gray matter was atrophied, the weight of the brain being also less than it should be. The principal microscopical phenomena are deposition of pigment or fat around the cerebral capillaries; sometimes calcareous degeneration or ectasis of the vessels, abundant pigmentation of the sympathetic ganglionic nerve-cells; finally, the usual results of all chronic diseases destructive of nerve-tissue.

The other organs of the body which are affected by hyperæmia or inflammation in an early stage, and by atrophy in a later, are the colon, uterus and ovaries, heart, kidneys, liver, and spleen; also the various morbid changes in the skin, of which we may spare the details to our readers. A point of more particular interest to them is that, in 19 out of 46 post-mortems, the ribs were found to be particularly fragile, many of these persons with fragile ribs being neither old nor emaciated; the same thing has been more rarely noticed in other bones.

Professor Lombroso is inclined to ascribe most of these morbid changes to local vaso-motor pareses, which he supposes to be produced by affection of the nerve cells of the sympathetic ganglia. (It is worthy of note that he has once found pigmentation of the ganglia limited to the solar plexus) Be this as it may, every one will at once see the interest attaching to a disease which, in its mental characteristics, stands between alcoholism and general paralysis, but nearer on the whole to the latter, and which is produced by the slow action of an organic poison.

Dr. Lombroso goes at great length into the prophylaxis of pellagra, in which we need not follow him; the results of treatment are much more interesting to us, and are the more valuable that the evidences of his great care make one confide thoroughly in their reality; he gives, moreover, the details of a very large number of cases, by means of which his statements can be tested.

The acute urinæmic form of the disease ("pellagrous typhus") has

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proved rebellious to every treatment except the use of the sulphites of soda or lime, which were only lately recommended to our author by the physicians of the hospital at Vicenza, and which have, apparently, cured two out of three patients to whom they were administered.

For the chronic varieties of pellagra the most valuable remedy is arsenic, which cures almost invariably if given sufficiently early in the disease. Cases of pellagrous insanity, of several years' duration, have been cured after the administration of arsenic for some months. Refusal of food, which is often a prominent psychical symptom, is particularly amenable to this treatment, which generally fails (as might be expected) in cases where the mental disease assumes the "systematic" forms of chronic mania or melancholia. Opium cured two patients who were acutely melancholic in a very short time; while acetate of lead is of particular service where tremors and commencing paralysis are prominent symptoms. The class of patients whose growth and development is so remarkably checked by the influence of pellagra in early life are greatly relieved, if not cured, by friction with common salt; this treatment seems to improve not only the stunted condition of body, but also the feeble state of mind verging upon idiocy, which is peculiar to them. Iron, a favourite remedy for pellagra with most Italian physicians, has never done any good in our author's hands, and has frequently seemed to be injurious; he has given a patient and prolonged trial to cod-liver oil, iodine, and sulphur, but without reaping any advantage.

We need hardly call our readers' attention to the importance of these details of the treatment of a disease which has definite bodily and mental symptoms, considering the imperfect state of our knowledge of the therapeutics of insanity. The use of opium in melancholia is known to everyone, and some of us may have observed the good effects of arsenic in insane patients who refuse their food; but that insanity of ten or twelve years' duration should be curable by any means of treatment is one of those gleams of hope which we sorely need to prevent our sinking into mere speculative observers of disease which we do not attempt to do more than palliate.

As Professor Lombroso's work is written in a language unfortunately not understood by most of our readers it was the more necessary for the reviewer to examine it with great care, so as to satisfy himself thoroughly as to its trustworthiness. This he has done to the best of his ability, and he only regrets that he should be able to give his readers no adequate idea of the ability and completeness with which the whole subject has been treated. It is one proof, among many, that the countrymen of Morgagni and Baglivi have at this day worthy successors among them to the great physicians who have made their schools so illustrious in days gone by.

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