selves, is the chief source of our deplorable cases; and by the best practitioners Cancer is an all but unmastered complaint. If a difficulty in the diagnosis occasion delay in the removal of a cancerous tumour, the mischief which ensues is excusable. And, where an operation is refused by the deliberate judgment of the patient, or, for some acquired delicacy of the frame as a whole or disease of an internal organ, is held to be improper, all responsibility as to the consequences falls off from the medical attendant. Still there are cases in which the primary disease is allowed to make head, notwithstanding the glowing health which the patient, in common with most persons liable to Cancer, retains.

It may, I fear, be a thankless task to bring to light some of the consequences of error respecting Cancer with which I have become acquainted; but I am impelled to do so by the distressing nature of the cases which not unfrequently come to light. I am persuaded also that the vast majority of the profession, whose competence to treat this disease makes them judges, not subjects, of my remarks, will appreciate an attempt to make such treatment as their own universal.

There is one question, before all others, relating to the treatment of primary Cancers, which presses for attention, and which I therefore allude to in the present communication: it is the injection of such tumours with acetic acid. It is not yet possible to foresee the extension of which that method of treating Cancer is capable. I have myself much hope from the employment of it; but I am already satisfied by its effects in secondary tumours, that it is not yet made applicable to the primary. From the first promulgation of this treatment by Dr. Broadbent, I have never used it or advised it in any case for which the ordinary operation was adapted, as it did not appear right to essay a remedy so little tried, and the adequacy of which for relieving all conditions of the disease was uncertain, in any person entitled to treatment known to be effectual. Already I have come to know that both disappointment and damage have resulted from an experimental use of the acetic acid in cases of primary Cancer of the breast, which were fitted for removal by the knife. It is the more incumbent on me to say this, as by announcing the destruction of cancerous matter in the interior of a lymphatic gland with this acid, and the absolute dispersion of small recurrent subcutaneous cancerous tumours by the same means, I may unwittingly have encouraged others to what I cannot but think a misapplication of the remedy. So ready a method of disposing of Cancer is not yet won. Its unseen diffusion beyond the apparent limits of a tumour, is too certain a fact to justify confidence in injections for the removal of it. Neither is it to be yet expected of a remedy so slow in its action, and the management of which is far from perfected, that it should all at once supersede the more sure operation. The condition of primary tumours appears to me to make them particularly unfit for this treatment, for whilst they are growing, and may be large, the acid can only be thrown into them in small quantities, and at intervals. If used in a large quantity, it produces supuration or sloughing, a disastrous action of a remedy in a primary Cancer; and in any quantity it produces swelling, with consequent uncertainty as to the area over which the effect of the acid has been secured, and delay in pursuing the treatment. Meanwhile the tumours continue to grow in the parts concealed by the swelling. I cannot think this to be right treatment of a primary Cancer.

Such objections may appear to relate no less to a secondary, recurrent, or advanced, than to a primary tumour; but the circumstances are in fact very dif-

ferent. The treatment of the later disease is avowedly undertaken with less prospect of advantage than that of the primary. In those advanced cases the acid can achieve the reduction always, and sometimes the removal of the morbid mass; and it is only in such cases, where established methods of treatment are unsatisfactory, that those which make greater promise ought to be proved.

A CASE OF MELANCHOLIA, ASSOCIATED WITH, AND PERHAPS DUE TO, ADDISON'S DISEASE.

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P. H., aged 46, was admitted into the Asylum at Hayward's Heath, on April 10th, 1866, in a state of acute melancholia, with delusions of a religious nature. Her chief delusion appeared to be that she was a devil in hell, and that she was being consumed by fire. Her distress was most acute, and she did nothing all day but sit and wring her hands, and cry and moan and bewail her lost fallen condition. Her general health was evidently indifferent. She looked pale and thin and yellow; the heart's action was feeble, but the sounds normal; respiration was regular, and the lungs were apparently free from disease. She was small both in frame and in stature; very cachectic in appearance, and of a bilious temperament.

As regards her history, all the facts that could be gathered from her friends were, that she was the wife of a labourer, and had always been of a very active, anxious disposition; that for some months she had been gradually losing flesh, and had become more yellow; that for some weeks she had declared to her husband she was going out of her mind, but that she seemed perfectly sane up to a week before admission, when she suddenly became very restless and excited, passed a night without any sleep, and the next morning was both violent and deluded, so violent, indeed, as to require three men to restrain her.

On admission, she was ordered a pint of essence of beef-tea, a glass of port wine in the night, and a drachm of Taylor's liquor opii at bedtime, and a second dose at twelve o'clock, if necessary.

April 12th. She was very incoherent and excited; slept several hours last night; she had to be forced with her food; she was ordered to have beef-tea and eggs, and to continue the liquor opii every four hours.

April 13th. She was quieter to day, and only required a dose of medicine at bedtime.

April 14th. She was ordered to have the Roman bath, and to take out-door exercise for an hour.

June 12th. She was somewhat better physically, and able to work a little in the laundry; mentally she had gradually lapsed into a state of chronic melancholy, and even when at work scarcely ever ceased silently weeping; all excitement had passed away. The following mixture was ordered to be taken in doses of an ounce, three times a day:—

R. Liqueur morphine acetatis, ʒiv; ætheris chlorici, ʒi; acidi hydrocyanici diluti, ʒi. Aquæ ad ʒxii.

July 24th. She was worse both mentally and physically; indeed, she was becoming a most miserable object; she was nothing but skin and bone. She

suffered from frequent sickness, and diarrhoea; and it was with difficulty she could be prevailed on to take any food. Herskin was turning decidedly deeper in colour.

September 24th. Her mind appeared to be a little less clouded, and she was scarcely so restless. She had had to be put to bed, as she could scarcely stand without fainting. Small boils had appeared on various parts of her body. Various medicines had been at times prescribed for her, but nothing remained on her stomach so well, or curbed her restlessness so effectually, as the liquor opii.

October 24th. She had been extremely restless lately, and got but little sleep; she now, however, took her food well, and seldom vomited. Her diet consisted of milk, two ounces of brandy, four ounces of gin, essence of beef-tea, and two eggs daily; solid food she could not take.

November 1st. She had taken all liquids that were given her, but apparently without the least benefit, as she gradually became weaker and weaker, and, after a somewhat severe attack of diarrhoea yesterday morning, she seemed to lose consciousness, but became very restless, moving her arms and legs about in an aimless manner. Towards night, her pulse became weaker, and gradually almost imperceptible. Life had flickered out, as it were, by one this morning.

POST MORTEM EXAMINATION, sixteen hours after death. The brain, compared with the amount of blood in the other organs of the body, was in a decided state of hyperæmia; and there was considerable effusion of a deep yellow serum under the membranes, and within the ventricles. The arachnoid was opaque in patches; otherwise there was nothing apparently abnormal in the appearance of the brain. The heart was quite empty; both the right ventricle and auricle were flabby, and the walls of the former were thin. The coronary arteries of the left ventricle were gorged with blood, and very tortuous. The left ventricle itself was firmly contracted, so that scarcely any cavity could be traced; and the walls were so thick and hard as to require considerable force and a strong knife to cut through them. All the valves appeared normal. A dusky coloured, firm, fibrinous clot filled the ascending, and a portion of the descending, aorta. The lungs were healthy; the spleen and liver were both enlarged, and the substance of both, as well as of the kidneys, appeared unusually firm, almost like gristle; otherwise, they seemed to be normal. The suprarenal capsules were considerably larger than usual; the right consisted of nothing, apparently, but a thick dusky yellow semisolid matter, which, under the microscope, revealed only a homogeneous mass, with a few nuclei floating in it; three-fourths of the left capsule, which was larger than the other, seemed to be composed of much the same material, but the other fourth was quite firm and gritty. There was a considerable amount of fibrous tissue around both capsules. The sympathetic nerves from the lesser splanchnic, and the ganglia of the solar plexus have been noticed, in cases of suprarenal melasma, to be affected, but apparently in this case they were normal. Dr. Wilks has also noticed calcareous concretions in the medulla oblongata in some cases, but such did not exist in the present one. There was slight ecchymosis of the stomach, and some of Brunner's glands seemed enlarged. Various portions of the viscera were tested with iodine for amyloid degeneration, but with only negative results.

REMARKS. I have called this case "A Case of Melancholia associated with, and perhaps due to, Addison's Disease." All modern psychological teach-

ing goes to prove that mental disease is due to some physical cause; and, as Dr. Bucknill says, theories ascribing insanity to disease of the spiritual essence, or to other conditions pertaining to the mysteries of ontology, are now held but by the few. Dr. Skae, the lecturer on psychology at Edinburgh, in his address as president for the year 1863 of the Medico-Psychological Association, brought forward a "rational and practical classification of insanity," in which, reasoning on the hypothesis that all cases of insanity were due to some well-defined organic, or functional lesion, he split up his nosology into innumerable headings, naming each case after the physical ailment; thus, amenorrhœal mania, phthisical mania, etc. I think I therefore have at least his countenance for naming the above case, Mania Morbi Addisonii; and, if we examine this matter a little more closely, it is less startling than a *primâ facie* view would lead one to suppose.

Dr. Bucknill, in his chapter on the Pathology of Insanity, establishes the great pathological axiom of psychology, that "The one physiological principle upon which we have to build a system of cerebral pathology is, that mental health is dependent on the due nutrition, stimulation, and repose of the brain; that is, upon the conditions of the exhaustion and reparation of its nerve-substance being maintained in a healthy and regular state; and that mental disease results from the interruption or disturbance of these conditions." In other words, mental health is dependent on the condition of the blood, for we are told that nerve-force is "generated in, or by, the vesicular neurine," and all the manifestations of the mind are promulgated by the growth, maturing, and decay of the cells of the vesicular neurine. When, therefore, these cells are propagated by an unhealthy blood, the function perfected by their healthy growth must, in the latter case, be more or less morbid. Granting such to be the case, we can easily imagine that, in a disease of defective nutrition and malassimilation like Addison's disease, and in which the blood has proved to be loaded with white blood-cells, and also otherwise defective, with a mind naturally anxious and excitable, such a condition would tend to produce insanity on the occurrence of a very moderate exciting cause.

The woman whose case is noted above, had all these characteristics in an eminent degree. She was naturally of a restless emotional disposition, prone to be easily upset; some time before she became insane, she had been failing in health, without any appreciable cause, (although now it is evident she was suffering from the preliminary stages of suprarenal melasma) and she even appeared to have a forewarning of her approaching mental aberration. Some household cares upset her, and, acting on a brain already ill nourished by the insidious disease from which she suffered, caused a total upset of reason, and acute melancholy resulted.

I am indebted to Dr. Lockhart Robertson, the medical superintendent, for permission to publish this case.

PREVENTION OF ACCIDENTS FROM FIRE-DAMP. M. Sommet, a pupil of M. Wurtz, on account of the accidents which unfortunately too frequently happen in coal-mines subject to fire-damp, proposes to the Academy of Sciences, Paris, to introduce into all the drifts electrical conducting wires, so that, on several points, during the absence of the men, the inflammable gases may be set on fire by interrupting the electrical circuit. By this means, he said, the numerous deaths might be avoided, which during the last month have brought desolation into the families of the colliers and the neighbourhood.