dropped down and expired on the spot. At the *post-mortem* examination nothing was found to account for death. Women have died suddenly while undergoing a simple vaginal examination.

The hypogastrium, cardiac region, testicles, laryngeal regions have all furnished examples of a similar nature. Minor struggles with patients having distended bladders have often ended fatally from rupture. Maschka reports the case of a boy who was struck on the anterior part of the larynx by a stone. He fell dead; no local or other lesion was found at the *post-mortem* examination.

Instances might be multiplied indefinitely, and I have no doubt you have all had cases in your experience where death has stepped in with rude and unexpected suddenness.

(1) A paper read at the South-Eastern Divisional Meeting held at Bethlem Hospital April 25th, 1911.

Asylum Dysentery. (1)

By W. J. ADAMS ERSKINE, M.D.Edin., Senior Assistant Medical Officer, City Asylum, Nottingham.

MY excuse for reading to you a paper on asylum dysentery must be that, as the Commissioners in Lunacy state, "there is still a singular difficulty in affording a reasonable explanation of the exceptional prevalence of dysentery in asylums."

That overcrowding is a factor none of us will deny, but it is a factor in all epidemics of a contagious or infectious nature, and we must look further. That constipation is a factor is certain; but it cannot be the only factor, as there are hundreds of constipated people in the world who never get colitis, though the success which attended Dr. Bevan Lewis's efforts in abolishing constipation and at the same time dysentery from Wakefield Asylum shows its importance. That the naturally dirty habits of the insane have something to do with it, as stated by Dr. Sidney Steward in an article in the *Journal of Mental Science* for April, 1910, is also probable. That the peculiar condition of the nervous system of the insane is a factor we will admit.

No doubt there are dysentery carriers, just as there are typhoid and diphtheria carriers, and their presence must always

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be a great danger, and these patients, although apparently well, will infect others with dysentery. Precautions must also be taken with regard to cases of dysentery which have apparently recovered.

I propose to draw your attention to-day to three other factors in the causation of dysentery.

First, I think the presence of kidney disease renders a patient more liable to dysentery. Kidney disease is very common in asylums, as is shown by *post-mortem* results, but in the insane the clinical signs of it may be few or overlooked. I have been struck by the fact that in the nine deaths in cases of dysentery which we have had here since the beginning of 1903, marked kidney disease was present in every case—always of a chronic kind.

Continental writers show a connection between gout and rheumatism and colitis, and the kidneys are affected in these diseases.

There is a peculiarly slimy condition of the peritoneal surfaces of the intestines present in kidney disease. My attention was called to this by our head attendant, who assists at *post-mortem* examinations, and he asked me why it was so. On further examination we found in all these cases marked kidney disease. That nephritis and colitis are associated has been noticed by several authors. In Allbutt's *System of Medicine* Dr. Dickinson mentions ulcers of the intestines in association with nephritis. Dr. Hale White gives instances of acute colitis with Bright's disease, but says it is rare. Professor Debove states that floating kidney is often associated with colitis, and describes a case where fixation of the kidney cured the condition.

We ought, therefore, to be very careful of cases whose kidneys we know to be diseased, and pay strict attention to their diet and bowels. Further, when dysentery is epidemic these cases will require to be guarded from infection.

In disordered renal excretion putrefactive toxins must be excreted too slowly. Probably the extra work of excretion thrown upon the bowels of the patients with kidney disease is a factor in their liability to dysentery.

Secondly, it seems to me that tubercular cases are especially liable to dysentery, and, if attacked, become more dangerous as sources of dysenteric than of tubercular infection. Our tuber-

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cular rate is rising with our dysentery. Arbuthnot Lane says he believes that tubercle very rarely affects patients whose resisting power is not lowered by intestinal auto-intoxication, and reports marvellous results in the treatment of tubercular joint disease from using liquid paraffin as a vehicle to facilitate drainage along with the use of tuberculin. He has given up intestinal antiseptics. Such patients with intestinal auto-intoxication would be prone to colitis. Tubercular cases, as is well known, are peculiarly liable to influenza, and perhaps it is influenza which causes their dysentery.

Thirdly, this brings me to—

Influenza as a Cause of Dysentery.

I have been struck by the facts that influenza and colitis have been epidemic here at the same time; that three annual epidemics of colitis have followed three annual influenza epidemics, and that cases of influenza have afterwards developed colitis.

The more one sees of influenza the more one feels what a great factor it is in the production of disease. It prepares the soil by lowering the resistance, it intensifies chronic disease, and attacks which are apparently mild may induce, weeks afterwards, grave disease and insanity. That sequelæ sometimes follow it somewhat tardily is to be noted, and in inquiring for a history one often has to go back months. It finds out the weak spots spots in our constitutions and indicates by its results what diathesis we belong to. We all know that there is such a thing as gastro-intestinal influenza, but it would be an extremely difficult thing for most of us to prove that any particular case of gastro-intestinal disturbance was due to influenza.

There still exists a loose practice of speaking of any febrile case (except typhoid) in which hæmorrhage from the bowel occurs as one of dysentery, yet in influenza blood may be found in the stools without there being any ulcer in the intestine (Norman Dalton, *Practitioner*, January, 1907).

In *post-mortems* on various cases of influenza, some with pneumonia and one with cerebritis, I have noticed that the mucous membrane of the stomach and intestines is reddened and exhibits many petechial spots (like flea-bites). No doubt

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from such hæmorrhage takes place. I have had cases of influenza with various hæmorrhages, some with epistaxis, some with menorrhagia, some with hæmaturia, and some with hæmoptysis. Most of these were slight and easily stopped.

I now quote from Prof. Leichtenstern, formerly of Cologne University (1905):

"One addition to the pathology of influenza furnished by the most recent epidemic is the demonstration that influenza may give rise to acute hæmorrhagic gastritis and enteritis and sometimes as a sequel also to peritonitis. Many cases of simple intestinal hæmorrhages as well as of severe bloody, mucous, dysenteroid diarrhœa in influenza have been described. The intense hyperæmia of the intestinal mucous membrane frequently found upon *post-mortem* examination with the addition of ecchymoses and streaky hæmorrhages is sufficient to account for the simple hæmorrhages. This variety of hæmorrhage from the intestine is analogous to epistaxis and to the influenzal hæmorrhages of the pharynx, larynx, and bronchi. This hyperæmia of the intestinal mucous membrane may progress to inflammation, necrosis, and ulceration."

In the *British Medical Journal*, 1891, Dr. Frank Nicholson records cases of influenza with diarrhœa, accompanied by the discharge of mucus, membranous flakes, blood and sloughs. Such cases occurring in asylums must be difficult to distinguish from true asylum dysentery. Therefore I beg to submit that some cases of so-called asylum dysentery are really cases of influenza, and secondly, that influenza is a cause of asylum dysentery. I will now give you some of my reasons.

In the Sixty-fourth Report of the Commissioners in Lunacy I find that the most marked outbreaks of asylum dysentery during 1909 were at Whittingham, Barming Heath, Manor, Cotford, and Derby Borough Asylums. I find also from the reports that in *all* these asylums there were outbreaks of influenza preceding or at the same time. Dr. Macphail, of Derby, drew attention to the fact that the first epidemic of dysentery in the history of the asylum occurred there in February and March following an outbreak of influenza in January, and he notes that all the cases who subsequently developed dysentery had been previously the victims of influenza.

The history of our dysentery is as follows:

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In 1903 we had one case, on the female side. There were two or three cases of influenza at the same time.

In January and February, 1904, there were two cases of dysentery and several cases of bronchitic influenza on the female side, followed by an influenza epidemic in March, one case being a gastro-intestinal one. We had no further dysentery cases until 1909.

In February, 1909, we had one or two cases of influenza on each side, and from February 1st to March 25th we had an epidemic of eleven cases of dysentery on the female side, and four cases of severe diarrhœa (probably influenzal). At the same time we had seven slight and two severe cases of diarrhœa on the male side. One female suffering from dysentery died, and the diagnosis was verified *post mortem*.

We had no further cases of dysentery till March 3rd, 1910, when the same sequence of events happened.

From October, 1910, to June, 1910, we had an epidemic of influenza attacking seventy-four female and thirty-four male patients, twenty-three female and sixteen male attendants.

In February, March, and May, 1910, that is, while the influenza was epidemic, and four months after its start, there was an outbreak of dysentery—nine cases in all on the female side—accompanied, in February, by an epidemic of diarrhœa on the male side—eight cases in all.

In June we had several cases of influenza on the female side, some of whom had diarrhœa.

In August we had a solitary female case of dysentery, which died.

In September and October we had four cases of what I now consider to have been influenzal colitis on the female side. They were characterised by mildness, slight elevation of temperature at the beginning, pain in back and legs, and headache, with some blood in the stools and very little mucus.

In November influenza started again in its various forms, and has continued up to the present time.

In November and December nine female patients and six nurses had attacks of influenza, and there was one case of influenzal colitis.

From January to April seven nurses and eleven attendants have been affected, and amongst them it assumed the ordinary form, the gastric form, a rheumatic form, and a tonsillar form.

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At the same time (January to April) there were eighteen male patients affected, and of these four had diarrhœa and five others developed dysentery. There was an outbreak of dysentery on the male side from March 27th to the present time (April 24th), affecting twenty cases in all (including the five who had undoubted influenza).

There was one death among the patients who had had influenza first. On the female side we had only one case of dysentery in February, and she died.

Thus for three years in succession we have had an epidemic of dysentery in the early months of the year following an outbreak of influenza.

Since 1903 we have had forty-six cases of ulcerative colitis with seven deaths directly due to colitis—a death-rate of about 15 *per cent.* The death-rate of our last epidemic is 7·4 *per cent.*

In all England in 1903 the percentage was 21 and in 1908 22. In Dr. Steward's cases those treated with salines gave a death-rate of 8·3 *per cent.* and those treated otherwise one of 32·8 *per cent.*

Treatment.—The preventive treatment consists in the regular administration of purgatives and the education of the nursing staff. Nurses who have had to deal with dysentery cases get very enthusiastic and bring curious cases to one's notice. I do not think we can say that because any given patient has mucus in his or her stools that such a case is one of asylum dysentery. Nevertheless, it would be safest to keep such a case under observation.

There can be no doubt that isolation is the best way to treat dysentery cases in the interests of the other inmates. In March, 1910, we had all our cases in the Isolation Hospital and stopped the epidemic. The windows were kept wide open and there was plenty of fresh air. Treatment in the fresh air under a verandah would be ideal if the weather permitted it. Where nothing better can be devised isolation in single rooms is better than in the hospital wards of the asylum. The windows must be well open and there should be a fire. A list of cases who have had colitis should be kept and such cases should be watched. If we can reduce our influenza I think we shall reduce our dysentery.

Influenza cases should be isolated if possible in an influenza

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ward. Members of the staff who have influenza should not be visited by others who are employed in the asylum any more than is necessary.

Cases of influenza after being allowed up or out of hospital should be watched for constipation, especially if they have had the gastro-intestinal form. Both dysentery and influenza cases should be kept away from kidney cases, tubercular cases, and paralytic cases.

Medicinal.—Our routine treatment is to administer magnesium sulphate. We have given it in various ways and doses, but now I generally give ½ oz. in 2 oz. of water morning and evening until the stools become watery and the blood and mucus cease. Sometimes this happens after two doses. If blood or mucus recur magnesium sulphate is again given.

The administration of purgatives in influenza of the alimentary type may give rise to obstinate diarrhœa, and this is to be noted when dealing with colitis which owes its origin to influenza, so that we do not push the administration of magnesium sulphate too far.

Drs. Robertson and Elkin, in their report on the epidemic of influenza at the Royal Asylum, Morningside, Edinburgh, state that diarrhœa was frequently started by the administration of laxatives.

In some cases of influenza there is a sudden abortive diarrhœa and then the patient gets better. During epidemics of dysentery and diarrhœa I have had cases where one or two 5-gr. doses of quinine sulphate have been followed by a cessation of diarrhœa, but these may have been abortive cases of influenza.

As a rule influenzal diarrhœa is best treated by a mixture of sodium salicylate and bismuth carbonate.

In dysentery I have found another drug useful: it is tincture of belladonna. I generally give it in ten-minim doses thrice daily after the first day of mag. sulph. It tends to keep the bowels open and reduce the mucus. In some cases it seems to have an almost specific effect.

If there is abdominal pain hot applications generally remove it. We never use lavage of the intestine. Enemata are useful at the beginning if the case is one of loaded bowel.

Diet.—In severe cases milk only is given or milk and soda-water. In less severe cases and later on in severe ones milk

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puddings, tea, thin bread and butter without crust may be given. I often give porridge and have found it do no harm. It tends to keep the bowels open. Vegetables I do not find so obnoxious as some of the continental writers say. The undigested vegetable fibre may act as a mild scrubbing-brush to the dirty mucous membrane. Stimulants are not often required. In certain cases there is a tendency to collapse, the cardiac action is feeble and there is a feeling cold; in these alcohol is good. In some cases whisky helps to keep the bowels open.

I have tried lactic acid therapeutically and the patients did well on it. I have also tried junket and whey with good results. We have used plasmon in some debilitated cases and they improved on it.

Disinfection.—Of course this must be thorough. We use kerol here as a rule.

Our hope for the future must be in the sera and vaccines, and money spent on these will in time return good interest.

(1) A paper read at the Northern and Midland Divisional Meeting at Nottingham, April 27th, 1911.

Syphilis and Congenital Mental Defect. (1) By C. G. A. CHISLETT, M.B., Ch.B.Glas., Assistant Medical Officer, Woodilee, Lenzie.

WITH the exception of cretinism, mongolism and amaurotic idiocy, and juvenile general paralysis, it may be said that the only classification of congenital mental deficiency is one based on the degree of mental defect.

"Idiocy," "imbecility," and "mental debility" are terms employed to distinguish somewhat arbitrary classes of varying grades of mental deficiency, but these terms have no ætiological significance. Even the neurological distinctions based on the varieties of motor affection in idiots and imbeciles with cerebral palsy do not offer a satisfactory basis for a scientific classification of such cases.

A classification or interpretation on anatomical grounds must also, in many cases, prove unsatisfactory, inasmuch as after death, the condition found can in many cases only

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