THE MEDICAL TIMES.

VOLUME I.—NO. 10.] KINGSTON, (CANADA), SATURDAY, SEPTEMBER 6, 1873. [PRICE FIVE CENTS.

PRACTICAL MEDICINE.

ON ACUTE URÆMIA.

Dr. Alfred Loomis, of New York, read a paper recently on this subject before the New York Academy of Medicine, which is remarkable as advocating the hypodermic solution of morphia in uræmia. Ten cases are cited to justify the employment of this remedy. The paper is a very valuable contribution towards the management of a difficult class of cases:—

An acute uræmic attack is usually preceded by certain premonitory signs, such as œdema in various parts of the body, restlessness, or an almost irresistible desire to sleep, vertigo, headache, delirium, nausea, vomiting, and impaired vision; the countenance has a pale, waxy or dingy appearance; the urine is scanty, high coloured, bloody, albuminous, and contains casts. After the appearance of the premonitory symptoms the progress of the mischief will vary in different cases according to the amount and cause of the retention of the urea.

Thus, if a large amount of urea is suddenly thrown into the circulation and retained by a continuance of the arrested elimination, or increased by a continuance of the producing cause, the body and extremities become violently convulsed, or the patient passes rapidly into a state of coma.

The convulsion may consist of a single paroxysm, or a succession of paroxysms may follow one another at intervals of a few minutes or several hours, the patient lying during the interval in a state of more or less profound insensibility. During the convulsion, the face becomes livid, eyes glassy, the pupils contracted or dilated. At the commencement of the convulsive attack they are generally contracted; frothy mucus, which is sometimes bloody, collects around the mouth, and there is a strong urinous odour emanating from the perspiration. The pulse is accelerated, and the temperature is raised in some instances as high as 107°.

Uræmic coma may come on gradually, twenty-four or forty-eight hours elapsing before the stupor is complete, or the patient may fall suddenly into a state of profound coma, its advent resembling an attack of cerebral apoplexy. There are periods when the coma is so profound that nothing arouses the patient; at other times he is easily aroused, or arouses himself, and attempts to speak and to sit up, swallowing fluids with little difficulty.

When urea is gradually introduced into the circulation, or is freely eliminated, as in cases where renal disease is slowly developed, the system becomes accustomed to the presence of the poison, and thus a considerable excess of urea may exist in the blood for a long period without giving rise to any but the premonitory symptoms of acute uræmia; but when once the balance is destroyed and a certain excess of urea in the blood is reached, the kidneys become embarrassed by the excessive demand made upon their excreting power, and rapid and intense renal congestion follows, the nerve-centres are overwhelmed and either convulsions and coma, or both, follow, and thus acute uræmia may be developed in the chronic as well as in the acute stage of renal disease.

Uræmic coma is always accompanied by a certain amount of stertor; the respirations are accelerated at first, but they soon become slow and laboured. The pupils are dilated, but they are not irregular; the pulse is more rapid than natural and lacks firmness. The temperature at first is raised, but after a time falls below the normal standard. Acute uræmia simulates in some particulars so many diseases in which convulsions and coma are the leading symptoms, that it is difficult to give directions which shall enable one to always separate it from analogous disorders. I will name a few of the more prominent points in its differential diagnosis.

The phenomena of an epileptic seizure are almost identical with those of uræmia, and in some instances the task of distinguishing the one from the other would be exceedingly difficult unless the previous history was admitted.

If the patient's history is known, the chronic character of the epilepsy is sufficient to distinguish it from acute uræmia, and an examination of the urine positively determines the uræmic character of a convulsion. At the time of the paroxysm a distinction may also be drawn, for in epilepsy one side is convulsed more violently than the other, while in uræmia both sides of the body are equally affected by the convulsive movements. In epilepsy, although there is loss of consciousness, reflex sensibility continues from the beginning to the end of the paroxysm, which is not the case in uræmia. Immediately following uræmic paroxysms there is deep coma; following an epileptic seizure there is merely a deep sleep, from which the patient may be aroused.

In cerebral apoplexy, coma always precedes convulsions, and with the convulsions there is facial paralysis and hemiplegia; there is also clonic spasm of the paralyzed parts, and the urinary symptoms are absent. In hysterical convulsions the patient falls into a convulsive, tetanic or cataleptic condition, with a scream. Close inspection shows that the patient is not unconscious, and the pupils are normal, as are also the pulse and temperature. The limbs are jerked irregularly,—the breathing is jerking and spasmodic, and is attended with a choking sensation. There is no lividity of the face or distention of the cervical blood-vessels, and the close of the paroxysm is usually accompanied by the discharge of a large quantity of pale urine.

Cholæmic convulsions, or those that occur when the blood is overcharged with the constituents of the bile, in their phenomena very closely resemble uræmia, but may be distinguished from them by the jaundice which precedes or accompanies their development, and by the antecedent history of acute hepatic affections. Convulsions originating in meningitis and other cerebral affections are distinguished by the accompanying characteristic symptoms of these affections.

The main points in the differential diagnosis of uræmic coma are identical with those of uræmic convulsions. It may be distinguished from the coma of apoplexy by the absence of paralysis, from opium poisoning by the rise in temperature (the temperature in uræmic coma being generally above 100°, while in the coma from opium it is below the normal). The slow and peculiar character of the respiration in opium-coma also distinguishes it from uræmia.

The condition of the pupils is not a safe guide, for not unfrequently in uræmia they are as contracted as in opium-poisoning.

It is distinguished from epileptic coma, by the antecedent history, and from rum-coma, by the alcoholic surroundings of alcoholismus.

In all cases of coma, an examination of the urine is necessary to complete the diagnosis.

Apparently the primary cause of death in uræmia is the accumulation of urea in the circulation, which acts as a true narcotic poison, resembling in its *modus operandi* other narcotics, of which belladonna and opium are the best types. When introduced in so small quantities that its elimination can be accomplished in a short time, it produces a moderate sleep; but when the quantity is sufficiently large to overtax the eliminating powers, it causes death by arresting oxidization.

(To be Continued.)

ON SIMPLE VERTIGO.

In a paper read before the Yorkshire Branch of the British Medical Association, and published in the *British Medical Journal* for July 26, 1873, Dr. Clifford Allbutt records ten cases of simple vertigo, and makes the following comments upon them. The only constant symptom in the cases was vertigo. All of them were males, and, as far as could be made out, the giddiness was not symptomatic of any other disease or disorder. The vertigo was often very distressing and very rebellious to treatment. The average age of the patients was 44·7 years: but there was no evidence of any degenerative changes either in the arteries or other tissues. The vertigo, after lasting for months or years, disappears without any other nervous or other disease being developed. There was no loss of consciousness in any of the cases recorded. 'One patient suffered from migraine, which ceased about the time of the vertigo; another belonged to a neurotic family. Many of them were men of anxious or irritable temperament, or placed in positions of anxiety