

Medical.

SOME MEDITATIONS ON MEDICATION.

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TREATMENT is a two-edged weapon in the fight against disease ; any remedy powerful for good may in excessive doses act as a poison, and it is difficult to draw a hard and fast line between drugs and poisons. In persons hypersensitive to a drug ordinary doses may produce alarming effects. Apart from the psychological effect, which may be very impressive, for example, the purgation due to a bread pill administered with pontifical suggestion, a remedy devoid of possible toxic effects may be regarded as probably inert. The best established drugs, such as digitalis, mercury, belladonna, quinine, iodides, bromides, arsenic, and salicylates, are those in which toxic effects are most familiar. It is unwise to disregard as fanciful a patient's statement that a particular medicine acts as a poison to him ; to do so may result in a sudden call, as likely as not at night, to deal with embarrassing symptoms.

It is a good plan always to consider, not only if a prescription is doing good, but also if it is exerting the opposite influence. The official doses of the British Pharmacopœia are rightly calculated on the lines of safety first, and are therefore sometimes not sufficient to have much effect on the average individual, and yet in the case of persons with a well-marked idiosyncrasy may have disastrous consequences. Every patient has his own appropriate dose, and it is a commonplace that treatment should be directed to help the patient to overcome the adverse influences which produce the reactions commonly called diseases. Many years ago, directly after becoming assistant physician at St. George's Hospital, I gave an out-patient 5 gr. of iodide of potassium, and next day was quite politely informed that he had been admitted into the hospital with a copious bullous eruption over the face, especially around the eyes, after taking two doses only of the fatal mixture.

An interesting chapter might be written on the diseases due to treatment, especially from the growing experience of some of the most successful methods of treatment recently introduced as the result of scientific research. This is true of some of what may be regarded as the native drugs of the body—the hormones of the endocrine glands. Thyroid extract, given in excess, imitates the hyperthyroidism of toxic goitre ; insulin if unwisely administered may produce the severe symptoms of hypoglycæmia, and Collip's parathormone the same mobilization of calcium and bony changes as those

seen in parathyroid adenoma. The toxic effects of arseno-benzol (salvarsan) preparations—acute dermatitis, jaundice, and necrosis of the liver—are well known; as is the optic atrophy following the administration of atoxyl. Arsenic, so powerful for good in many conditions and its “alterative” activity, may pass over the thin line between a stimulant and an irritant. This is seen particularly in the case of epithelial structures; in small doses it improves the condition of the skin by causing proliferation which when excessive is responsible for warts, keratosis, in rare cases for squamous-celled carcinoma, and commonly for pigmentation. Though regarded as a nerve tonic, it may set up, or at any rate favour the incidence of, acute inflammation of the ganglia on the posterior nerve roots and, as a result, herpes zoster. When chorea was treated with large doses of Fowler’s solution, peripheral neuritis was recognized as a possible result demanding consideration. Though not directly connected with medical prescriptions, a brief reference to the fine medico-detective work carried out by the late Dr. E. S. Reynolds (1861-1926) of Manchester, who had a physical resemblance to the illustrations representing Sherlock Holmes, may perhaps not be out of place. In 1890 there was an epidemic of alcoholic (really, as he proved, arsenical) neuritis among beer-drinkers in the North of England and the Midlands. In August of that year there was a great increase in the incidence of neuritis among beer- but not among spirit-drinkers, accompanied by various skin eruptions, including herpes zoster. Reynolds “remembered that arsenic was the only known drug which produced herpes, and so if there was any known drug acting as a poison in the beer it was almost certainly arsenic.” Analysis of the beer and of the patients’ urine showed the presence of arsenic, which was traced back to the Spanish pyrites from which the sulphuric acid, employed in the production of the sugars used in brewing, was made.

It is perhaps fortunate that the toxic effects of drugs are, as in fevers, often early manifestations in the form of rashes and so warnings of what may follow. Some drug rashes imitate those of the exanthematous fevers; those due to belladonna, quinine and an enema may simulate that of scarlet fever, an iodide eruption that of smallpox, serum injections those of scarlatina or measles. It is a safe rule when faced with an anomalous skin eruption to think of a drug eruption and first to eliminate this possibility.

Tonics literally mean restoratives of tone, and years ago were defined by Lauder Brunton as remedies which impart permanent strength to the body or its parts, and formerly included simple bitters, such as quassia, gentian and calumba, peculiar bitters, aromatic bitters and mineral drugs such as iron (H. G. Wood). But now the word “tonics” has a much less definite significance, and in Robert Hutchison’s words is roughly applied to “any thing which improves the sense of well-being.” It has therefore come to include stimulants, such as strychnine, which have a purely temporary effect and therefore are open to abuse. The overwrought and really tired naturally turn to any help, alcohol or otherwise, that will enable them to carry on their activities in work or pleasure, and demand a “tonic.” To give nux vomica in these circumstances is obviously symptomatic treatment and like flogging a tired horse. It may thus result in further exhaustion of the failing store of energy and accelerate the onset of neurasthenia. Those who ask for a “tonic” are often either (1) suffering from toxæmia, such as that due to over-

Tonics and Sedatives.

feeding, renal inadequacy, and need a restricted diet, rather than increased stoking and stimulants, and require eliminants, such as calomel, or from the effects of a septic focus demanding appropriate treatment, or (2) in need of rest and a sedative.

More than two hundred years ago the relative value of acids and alkalies in treatment was hotly contested. Acids are now known to be protoplasmic poisons, and the conditions in which they are indicated, such as achlorhydria and in urinary infections to render the urine acid and so enable hexamine to liberate formaldehyde and so to exert its antiseptic influence, are comparatively few. Acidæmia and acidosis are prone to occur in many morbid states and produce more serious results than alkalosis. But it must be admitted that acids often combined with liquor strychninæ are light-heartedly prescribed without much discrimination. The old dictum of an experienced general practitioner, "Never give acids when the wind comes from the east," may well be borne in mind on many days in the year.

**Acid and
Alkaline
Medicines.**