

patient to bear a more varied diet had been tested. In these cases, improvement, and decided improvement came promptly upon the use of the remedy.

In regard to the diet, sugar and food containing it, and vegetables rich in starch were forbidden. Bread was allowed only in the most moderate quantities. Patients are always desirous of explicit directions in regard to diet, and I have found it convenient and useful to give them a written or pantographic copy of the following:

ARTICLES OF FOOD FORBIDDEN.

Bread, cake, pastry of all kinds, and food prepared with flour, cracked wheat, oatmeal, rice.

Potatoes, turnips, beets, beans, corn, carrots.

Prunes, grapes, figs, bananas, pears, apples, preserved fruits.

Liquors of all kinds, whether distilled or fermented.

ARTICLES OF FOOD PERMITTED.

Soups, except those rich in vegetables, meat of all kinds, fish, eggs, oysters.

Radishes, cucumbers, cresses, celery, lettuce, spinach, cauliflower, cabbage, tomatoes, oyster-plant, onions, string beans, parsley, mushrooms, salads, pickles, olives, oil.

Lemons, gooseberries, currants, sparingly of raspberries, strawberries, oranges.

Milk, tea and coffee without sugar, but with glycerine in its place if desired.

More or less variation can be allowed from this in mild cases, and in severe cases more rigor may be required, although it is difficult to hold a patient to a diet more rigid than the above.

It is well known that in many cases of diabetes severe mental strain, sorrow or shock, seems to be the exciting cause of the disease. I have observed this so often that I carefully inquire in all cases for it. I am sure that in a large proportion of the cases that have come under my observation some such mental strain was present during the forming period of the disease. In the first of the cases here mentioned business difficulties, added to still more perplexing and worrying family cares, were present during the time when flesh and strength were most declining. In the second and third cases no such causes could be found. In the last two business trouble was coupled with family sorrow. In the fifth case the disease broke out just after the man's entire property had been lost in stock speculation. If any mental influence played a part in producing the disease in the fourth case it was sorrow.

In a very recent number of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION Dr. Austin Flint, Jr., has published a list of cases of diabetes in which the disease had occurred in near blood-relations. The fourth case that I have described might be added to this list, as her mother also suffered from diabetes, and finally died from the effects of carbuncles which complicated it.

MEDICAL PROGRESS.

ATROPINE IN POISONING BY MORPHINE.—In the *Vratch*, No. 44, 1885, p. 733, DR. J. I. JAVORSKY,

of Tashkent, records the case of a strongly built and generally healthy midwife, aged 33, who attempted to destroy herself by taking at 1 A.M. about 30 grains of acetate of morphine and half an ounce of tincture of opium, *Pharm. Rossica* (1:10). No nausea or vomiting occurred. She fell asleep and awoke about 8 A.M., looking very ill. When first seen by the author (at 9 A.M.) she lay speechless in a comatose state, with irregular, slow, superficial breathing, extreme myosis, her jaws being firmly pressed together. A hypodermic injection of a fourth of a grain of apomorphine produced vomiting in fifteen minutes, after which the author succeeded in introducing into the patient's stomach about six ounces of strong coffee, with a large quantity of tannin. The patient's state however, steadily grew worse. At 11 P.M. the author began to inject one-sixth of a grain of sulphate of atropine every fifteen or thirty minutes. Exactly one grain of the alkaloid was used up to 3 P.M. causing only a moderate mydriasis, but no improvement in the state of the patient, who lay now pulseless, breathing only five times a minute. In spite of the apparent hopelessness of the case, the author went on injecting atropine, alternating it now with injections of tincture of musk. And his energetic efforts were fully rewarded; about 9 P.M. the pulse became full, 90 a minute, and the breathing regular, 12 a minute. At 11 P.M. the patient became conscious and asked for drink. Having passed a quiet night, she rose on the next morning free from any danger. The whole amount of atropine injected from 11 A.M. till 9 P.M. was 2.03 grains; that of tincture of musk, about 2 drachms. Dr. Javorsky thinks that his case strongly supports the theory of an antagonism between atropine and morphine (as upheld by Binz, Benzold, Henbach, etc., against Onsum, Camus, Bois, Knapstein, Dokhman, etc.). [Dr. R. Neale's *Medical Digest*, sect. 376:5, contains a series of cases of morphine-poisoning cured by atropine. In the *Vönnö-Mediz. Journal*, August, 1877, Dr. Dobrokhotoff describes recovery after poisoning by 10 grains of morphine dissolved in 5 ounces of bitter almond-water; the patient, a weak woman, aged 24, was treated by atropine, administered both hypodermically and internally (altogether 2-5 grains), tincture of belladonna 30-drop doses, powder of musk in 1-gramme doses, etc. In the *Vratch. Vedomosti*, No. 27, 1883, p. 4162, Dr. Rodzewicz publishes a recovery after 8 grains of hydrochlorate of morphine, the treatment consisting in enemata of coffee-infusion, friction, electricity, wine, etc.—*Rep.*].—*London Medical Record*, March 15, 1886.

SEPTIC AORTITIS.—At the meeting of the Pathological Society of London, on April 6, 1886, DR. F. CHARLEWOOD TURNER showed three specimens of septic aortitis, and a microscopic section from a fourth case. The first specimen showed the aorta extensively ulcerated, with undermining of the endarterium. This was obtained from a female, aged 62, who had aortic incompetence, with hypertrophy and dilatation of the left ventricle, and granular kidney. Microscopic section from one of the ulcers showed masses of micrococci in the deepest layer of the endarterium,

at the base of the ulcer. The second specimen showed massive fibrinous coagula in the arch of the aorta; this was from a case of burn, fatal on the twenty-fifth day, from suppuration and pyrexia. The third specimen was from a man who died of secondary hæmorrhage, from a wound of the left internal mammary artery. A fibrinous mass was found adherent to the aorta near the valves, with smaller fibrinous deposit on atheromatous elevations. A fourth case was mentioned, in which a similar lesion was found in a patient who died on the second day after primary amputation of the thigh. A microscopic section showed masses of leucocytes about the vasa vasa in the outer and middle coats, great swelling of the intima with corpuscular infiltration and exudation in the most superficial layer, and cloudy granular fibrin on the surface. The arterial lesion in all the cases was referred to the combined effect of structural disease and septic contamination of the blood, weakening the resistance of the tissues, and giving a grave character to the lesion. The difference in anatomical character between the lesion in the first case and in the other was attributed to the predominance of the former factor in the one case, and of the latter factor in the other. The vascular lesion in this specimen was regarded as indicating the starting of similar lesions of the pulmonary artery or venous trunks, and of thrombotic lesions of smaller vessels, associated with severe endocarditis.—*British Medical Journal*, April 10, 1886.

THE ASSIMILATION OF IRON.—Much difference of opinion has existed as to the method of action of ferruginous tonics. That their use is of advantage is a matter of daily observation, but many difficulties arise when we attempt to explain their mode of assimilation, for, apart from the fact that nearly if not quite all the iron so ingested is recoverable in the feces, we are met with the equally perplexing fact that iron salts when introduced into the blood stream cause toxic symptoms analogous to those induced by arsenic.

It has long been recognized that the iron entering into our structure is not normally derived from any inorganic salt, but from one or more complex iron-containing compounds existing in our food, and to be found typically, of course, in milk. BUNGE, in the *Zeitschrift für physiologische Chemie* for 1885, records the extraction, from milk and from egg yolk, of this iron-containing organic compound, to which he gives the name of hæmatogen.

Hæmatogen markedly resembles hæmoglobin in molecular composition, though a still more close molecular resemblance may be traced between it and nuclein, if we ignore the absence of iron in the latter body. Bunge has extracted hæmatogen from the cereals and leguminosæ, and states very distinctly that our food "contains no inorganic iron combination, the iron present being in the form of complex organic compounds, which are built up by the vital activity of the plant; that in these forms the iron is absorbed and assimilated; and that from them the hæmoglobin originates."

Starting from these premises, Bunge's explanation

of the value of inorganic iron salts in chlorosis is very interesting. The catarrhal state of the alimentary tract present in this condition favors a process of fermentation which induces the decomposition of hæmatogen. But when the inorganic iron salts are present, the sulphites evolved in decomposition attack such salts, with the result of sparing the hæmatogen. Confirmatory to this theory is the recent method of treatment of chlorosis, in which the disinfection of the digestive tract by the administration of small antiseptic doses of hydrochloric acid, after meals, has been found more efficient than the use of iron.—*Medical News*, April 17, 1886.

IN THE ACTIVE INGREDIENTS OF ERGOT.—In *The Practitioner*, of December, 1885, PROFESSOR RUDOLPH KOBERT, records a series of experiments with the active principles of ergot. Experiments with ergotinic acid, internally and hypodermically, on pregnant bitches, rabbits, cats, and sheep, show that it possessed no ebolic power. Hence all aqueous extracts (as water dissolves only the ergotinic acid) are worthless. The *extractum secalis cornuti* of the German Pharmacopœia is an aqueous extract, and consequently is inert. Cornutine, is not to be confounded with the ergotinine of Tanret, as the latter is inert, produces uterine contractions both in animals that are pregnant and in those not. Sphacelinic acid is insoluble in water, and must be given in an emulsion. In cats and dogs it provoked powerful labor-pains, followed rapidly by the birth of the fœtus. From this it is seen that in the ebolic action caused by ergot both cornutine and sphacelinic acid take part. The latter acts directly on the uterus, while the former influences directly the centre for the uterine contractions, situated in the spinal cord. Professor Kobert had requested Gehe & Co., of Dresden to prepare an extract that contained both these active principles, which is called "extractum secalis cornuti cornutino-sphacelicum Kobert." It does not keep well for longer than six months, but Professor Kobert emphasizes the statement that neither ergot itself, nor any of the numerous commercial European, and American, preparations that he has examined, retains their therapeutic powers for more than twelve months.—*New York Medical Journal*, April 17, 1886.

BENZOATE OF COCAINE.—SEÑOR ALFREDO BIGNON, in a paper read before the Lima Academy of Medicine, and published in *La Cronica Médica*, strongly recommends the employment of the benzoate of cocaine in preference to the hydrochlorate (the salt most commonly used), and to the salicylate and borate, with which he has also made experiments. He finds that the benzoate is extremely soluble, easily crystallizable, and retains the characteristic odor of coca itself. The antiseptic qualities of benzoic acid also are an additional advantage. Amongst other experiments, the anæsthetic effects of a 20 per cent. solution of the benzoate were compared with those of a similar solution of the hydrochlorate in a case of epithelioma of the tongue, with the result that the effect of the former salt persisted for a much longer time than that of the latter.—*Lancet*, Feb. 20, 1886.