

The retrogression of the disease is marked and due to the sensitiveness of the gonococci to heat. Apparatus adapted to each affected joint can be made cheaply, so that recourse to commercial machines is entirely unnecessary.—*Münchener medicinische Wochenschrift*, 1898, No. 45, S. 1449.

Infiltration Anæsthesia—DR. PAUL HEINZE found that distilled water is absolutely useless as a local anæsthetic on account of the preliminary irritation of the sensory nerves that it occasions from the swelling of the cells by imbibition. Salt-solutions less strong than 0.6 per cent. cause imbibition by the cells and swelling; those of 2.5 per cent. and upward cause dehydration. Sodium chloride in 0.2 per cent. solution is very painful to inject, and the anæsthesia therefrom is not complete. Sugar solutions have no specific effect upon the sensory nerves, and potassium bromide is an intense irritant, while methyl-violet and hline are still more unsuitable. Caffeine and its salts belong to the class of painful anæsthetics, and their depressant action on the sensibility of the cutaneous nerves was found to be very slight. Carholie acid is efficacious so far as its local action is concerned, but there is danger of gangrene. Cocaine in 0.02 per cent. solution is very painful, and a tender, red infiltration is left behind. Morphine causes some anæsthesia, and all solutions are accompanied by more or less violent paresthesias. A 0.1 per cent. solution acts precisely as distilled water. It is active as a local anæsthetic only in the stronger solutions, and always causes intense local irritation. The solutions known as Schleich's are efficacious only on account of the cocaine which they contain. Acetanilid and antipyrin solutions are painful and useless, and gnaicol is equally inapplicable. Eucaine in watery solution causes uncomfortable sensations that may amount to pain, and it cannot replace cocaine. As for beta-eucaine, its solutions are of equal value with the same percentages of cocaine, because the osmotic tensions of the two drugs are about the same. The irritant effect of the former is even less. It is less toxic, not decomposed on boiling, and therefore can be sterilized. Orthoform is readily decomposed by even careless warming, and is hardly practicable for the purpose. Beta-eucaine is the remedy of choice, because it is less irritant, while being the equal of cocaine in anæsthetic effects. The following solution, warmed to body-temperature when used, is stable and can be sterilized by boiling: Beta-eucaine, 1; sodium chloride, 8; distilled water, 1000.—*Archiv für pathologische Anatomie, Physiologie und klinische Medicin*, 1898, Heft 3, S. 466.

Intravenous Injections of Normal Saline Solution.—DR. HORACE TRACY HANKS makes use of intravenous injections of normal saline solution for loss of blood from any cause, from severe traumatism, and for the early stage of sepsis after an operation, and for the suppression of urine and obstruction of the bowels from paralysis. A practical method is a common-sized teaspoonful of table-salt in a pint of pure water, the whole to be boiled for one-half hour, and filtered through several thicknesses of a sterilized towel and kept in closed bottles, well corked with cotton, and this cotton properly protected with a bit of clean gauze. A two-quart bottle should be filled with this solution and kept at a temperature of 115° to 118° F. by a towel wrapped about it, upon which hot water is poured as frequently as is

necessary to maintain this temperature. With the rubber tubing, glass connections, stop-cock, and a probe-pointed aspirating needle of suitable size, the apparatus is complete. Its simplicity warrants the more frequent employment of this method.—*American Gynecological and Obstetrical Journal*, 1898, vol. xiii. p. 233.

The Action of Formol Upon the Thyroid Gland.—M. LÉPINOIS suggests this substance in 1 per cent. aqueous solution for the preservation of thyroid glands intended for therapeutic purposes. He concludes: 1. This solution keeps them fresh and renders them unchangeable even if they are in the form of pulp. In the latter case a small quantity of glycerin should be added and the divided masses covered with a thin layer of gelatin, to prevent complete desiccation. 2. This treatment does not notably modify the chemical composition of the thyroid gland so far as the iodine-containing albuminoids are concerned, and their solubility in pure or salt water is hardly diminished. 3. Digestion of the gland is unaffected, and this and the preceding observation lead to the belief that their therapeutic activity is preserved.—*Bulletin Général de Thérapeutique*, 1898, t. cxxxvi. p. 655.

The Treatment of Diabetic Coma.—DR. ALBERT ROBIN, remarking upon the clinical forms (cardiac, dyspnoic, and nervous), formulates the following. 1. Stop all anti-diabetic régime and put the patient upon a milk diet. Avoid ill-considered medication, be doubly watchful at the first onset of slight intercurrent diseases. 2. Increase elimination by the bowels of poisons retained in the organism—for example, by an ounce of sodium sulphate. 3. To saturate the acids of the organism each day, give five drachms of sodium bicarbonate. 4. Watch the heart; if the pulse is small, rapid, or irregular, administer infusions of digitalis and ergotin to contract the peripheral arteries. If the pulse is slow, soft, and very compressible, give subcutaneous injections of citrated caffeine and by the mouth theohromine in forty-five grain doses. 5. To relieve the digestive disturbances and to increase the tolerance for milk administer before each portion of milk a small amount of strychnine sulphate, and after it a powder composed of five grains of pepsin and two of maltine [diastase]. To prevent lactic-acid fermentation without interfering with digestion, one-fourth of a grain of ammonium fluoride, well diluted, is recommended. 6. Two injections each day of a 25 per cent. solution of sodium glycono-phosphate are advised. 7. Energetic friction should be practised over the whole body with a stimulating liniment. 8. Large quantities of oxygen should be inhaled. If this treatment is commenced at the moment premonitory symptoms of coma appear, it frequently will ward it off. In the presence of actual coma treatment is unavailing.—*Bulletin Général de Thérapeutique*, 1898, t. cxxxvi. p. 353.

The Treatment of Neuralgias.—DR. HAMM recommends the spraying of ether upon the painful areas of neuralgia and headache. In some instances the spray has been so long continued that a pellicle of ice formed upon the skin, but no untoward results followed. In frontal headache, when seven grains of antipyrine had failed, one application relieved the pain.