

Lectures on Elementary Physiology, in relation to Medical Nursing.

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LECTURE V.—THE NERVOUS SYSTEM.

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WE come, then, to consider the various diseases of the nervous system in patients upon whom Nurses may be required to attend; and the principles and illustrations already employed will serve to explain the symptoms which they will observe. The most common affection of the nervous system in childhood is that to which the generic name of Fits is given. These are of widely different character and causation. Briefly, it may be said that a "fit" is an attack of convulsions or spasmodic contractions of the muscles, especially of the limbs, and which is accompanied usually by loss of consciousness. Infants, for example, may suffer from such fits in consequence either of brain disease or malformation, or from injury to the head caused during birth. As a general rule, such cases if severe are rapidly fatal, the pressure upon, or the disease of, the nerve centres preventing the fulfilment of the natural functions of the body.

Sometimes the attacks are due to pressure from the presence of water within the skull, which is found in the condition known as "water on the brain" or HYDROCEPHALUS. The fluid collects beneath the covering membranes and causes bulging and enlargement of the soft bones of the skull, while it sets up softening and disease of the surrounding brain substance, and, therefore, such irritation of the nerve centres that irregular contractions of the muscles supplied by those nerves are caused. For example, one of the first symptoms of the disease is squinting—the muscles of the eyes being first involved, and by their contractions drawing the eye to one side or the other; then by extension of the mischief other muscles become implicated, and so twitchings or even violent spasms of the limbs occur.

So far as the Nursing of these cases is concerned, if icebags or cold applications to the head are prescribed, it is necessary to remember that the whole success of the treatment depends upon the application being kept *cold*. It is always worse than useless to put on a

cold application and to allow it to become hot; because the blood vessels which the cold is intended to contract will be dilated by warmth, and so, instead of diminishing the congestion of the parts, carelessness in this respect may even increase it, and with consequent ill effects. One of the most effectual methods of applying cold to the head is by means of Leiter's tubes—a long metal pipe coiled round so as to form a cap, which can be made to fit closely to the head. Both ends of the pipe are connected with india-rubber tubing, the upper end of which is carried some feet above the bed and into a can of water, and the other end passes downward to open into a receptacle upon the floor. By this syphon arrangement, therefore, fluid can be made to pass from the can above the bed, round and round the head, and out at the lower end of the tube, and all that the Nurse will have to do is to be very careful that the upper receptacle is kept full of cold or iced water, and that the lower one is emptied as often as necessary. Icebags were popular in these cases formerly, but they had, and have, great disadvantages. Their weight generally irritates the patient; the heat of the head rapidly dissolves the ice, and they thus require frequent attention. In cases of Hydrocephalus, if the effusion of fluid is at all great, it is not unusual, in order to avert injurious pressure upon the brain, to pass a fine trocar between the bones into the skull and thus to withdraw some at least of the water. In some cases, leeches behind the ear, or blisters at the back of the head, which are kept open and discharging, by means of irritating ointment, have been found to cause absorption of the fluid, and in such cases the Nurse will be required to apply her general knowledge as to the necessity of antiseptic precautions and absolute cleanliness.

It will, of course, be the duty of the Nurse to carefully note and report to the doctor any symptoms of nerve pressure or irritation, such as those upon which stress has been laid in a previous Lecture, and which, in this disease, arise from the compressing action of the fluid upon the brain. And in Nursing the child, it is of the first importance to remember the necessity for absolute rest and quiet, and for the avoidance of all disturbing noises, and of everything which would excite the already irritable brain.

(To be continued.)

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