

## OUR PRIZE COMPETITION.

IN WHAT DISEASES ARE CONVULSIONS LIABLE TO OCCUR? HOW WOULD YOU DEAL WITH THEM PENDING THE ARRIVAL OF A MEDICAL PRACTITIONER? STATE FULLY THE TREATMENT OF A CHILD SUFFERING FROM A CONVULSIVE ATTACK

We have pleasure in awarding the prize this month to Miss J. G. Gilchrist, Gillespie Crescent, Edinburgh.

### PRIZE PAPER.

Convulsions are characterised by violent involuntary contractions of the motor impulses induced by irritation or over-stimulation of the nerve centres controlling such. They are essentially a symptom and not a disease, and may be broadly divided into two classes, the difference lying in the nature and origin of the attack: (a) Convulsions coming after impaired health, accompanied by other constitutional symptoms and associated with some disease of the nervous system; (b) convulsions which as a rule are more sudden and violent than in (a), are unpreceded by illness, and due to some temporary cause.

Convulsions are liable to occur in diseases of the brain, such as meningitis, cerebral tumour or abscess; in uremia and severe rachitis, induced by auto-intoxication and deficient supply of blood to the brain; in specific diseases, such as smallpox, scarlet fever, and, in young children, whooping cough, from the circulation of impure or poisoned blood in the brain. Epilepsy, chorea, and hysteria are also associated with convulsions, but the term is usually applied in a more symptomatic sense. Other causes of convulsions are from reflex irritation, such as indigestion of food in the stomach and bowels; constipation; intestinal worms. Poisons acting on the spinal cord, such as strychnine, give rise to convulsions of a tonic type, as do those associated with tetany. Children under three years of age, especially those of a nervous, improperly nourished type, are very liable to convulsive attacks. In pregnancy, eclampsia may occur. In diseases of the brain, convulsions are usually preceded by head symptoms, which should warn the nurse in charge to report and have assistance at hand to give any specific treatment ordered by the doctor beforehand. The patient should not be left alone, so that careful and accurate note may be taken of the symptoms, commencement, part of the body involved, the duration and severity of the attack. The room should be kept cool and quiet, the patient prevented from doing any injury to himself, and the bedding protected against involuntary action of bowels or bladder, or vomiting. Cold applications to the head are usually indicated, and warmth to the muscles effected, and there should be no restriction from clothing. Food should be carefully given after a convulsive attack, in liquid form and in small quantities, and the patient allowed to sleep if inclined.

If medical advice is not immediately obtainable, and if the cause can be ascertained, such as in the case of sudden convulsions in a child, preventive measures should be taken to prevent a recurrence. Thus, in the case of recently swallowed indigestible food, it is better to give an emetic for immediate relief; especially is this beneficial when there is a tendency to cramp and

spasmodic closure of the glottis. The finger passed well down the back of the throat may be tried in emergency. Mustard and water (a small teaspoonful in half a tumbler of warm water) is always safe, and effectual also. Ipecacuanha wine (half to one teaspoonful in an equal quantity of water) acts speedily. For constipation, due to a mass of undigested food, a purgative should be given, such as castor oil.

*Treatment.*—Note if the child is congested, the head hot and the pulse full; give a hot bath (temperature 100° F.) at once, with the addition of mustard if desirable, the child being seated in the bath and a sponge full of cold water squeezed over the head. The child should remain in the bath from four to five minutes, wrapped in a warm blanket, quickly and lightly dried, and allowed to sleep. Noises and bright light should be avoided, and the room well ventilated and not too warm. If the fit recurs, the treatment is repeated, and it may be necessary to give a soap-and-water enema in some cases. In most cases the child will wake refreshed and quite normal; in others, paralysis may result, or squinting of the eyes. If the child is teething, the doctor may lance the gums over an upcoming tooth to give relief.

Convulsions are not dangerous to life as a rule, but, in the case of weakly children, are a menace coupled with other complications.

### HONOURABLE MENTION.

The following competitors receive honourable mention:—Mrs. Farthing, S.R.N., Miss P. Thomson, Miss B. James, Miss M. Edwards.

Mrs. Farthing writes:—"Convulsive attacks are by no means uncommon in early infancy, and should be regarded rather as a symptom of some disease than as a disease in themselves. The reason they so often occur in the early months of a baby's life is that the brain is more irritable in the early months of infancy than later."

### QUESTION FOR MARCH.

Explain what is meant by Angina Pectoris. What would you do to relieve a patient in a spasm from that disease? What preventive measures should be used by one who is subject to attacks of Angina Pectoris?

### RECENT RESEARCHES CONCERNING DIPHTHERIA.

A very interesting article in *Medical Science* supports the belief of leading scientists that in the case of diphtheria the poison is not only carried in the blood stream, but "travels" alongside the nerves to the spinal cord and brain, with the substance of which it enters into chemical combination.

"The path of entry to the nervous system and the occurrence of selective fixation of toxins within the nervous system are shown to be two factors determining the nature of the clinical manifestations in any poisoning of the nervous system, while, by the recent investigations of Magnus, the way is opened to a more precise analysis of the mode of action of poisons upon those parts of the nervous system involved—that is, to a study of a third factor, the specific action of a given poison upon nervous tissue."

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