

OUR PRIZE COMPETITION.

WHAT DO YOU KNOW OF POLIOMYELITIS AND THE CHIEF POINTS IN ITS NURSING CARE?

We have pleasure in awarding the prize this month to Miss Mabelle Augusta Fussell, S.R.N., 232, Green Lane, Norbury, S.W. 16.

PRIZE PAPER.

Poliomyelitis, or infantile paralysis, is a disease caused by an unknown organism which attacks and destroys the cells in the anterior horns of the spinal cord, resulting in paralysis of some group of muscles in the limbs or trunk.

It is a lower motor neuron lesion, occurs chiefly in the late summer or autumn, and attacks children between the ages of nine months and six years, more commonly during the second or third year, and sometimes, but much more rarely, young adults. It may occur in a sporadic or epidemic form; in the latter form it sometimes terminates fatally.

The spread of the infection may be (a) direct from the infected patient; (b) by carriers.

It tends to follow the lines of communication, namely, roads and railways. *Incubation* period is uncertain, but probably one to fourteen days. *Quarantine*, fourteen days; and *isolation* about three weeks, or till there is no nasal discharge.

There are several types of the disease, as it may involve other parts of the nervous system, but the spinal form is by far the most common.

The onset varies: it may be sudden, the child going to bed in his usual health, and on awakening in the morning he is unable to move an arm or a leg as the case may be. On the other hand, there may be a history of definite illness, fever, temperature 103-104 degs. F., headache, pain in the limbs, vomiting, sore throat, head retraction, and general irritability. During the acute stage, the patient is very ill. There is acute pain and tenderness in the affected part, the muscles become flaccid, and later there is marked wasting; if the abdominal muscles are affected, the abdominal wall bulges when the child cries; the disease is at its maximum at an early stage and complete recovery is rare.

Nursing.—It is safer to treat this as an infectious disease; discharge from the nose and throat should be regarded as highly infectious. The patient should be isolated, and everything kept exclusively for his use only; the nurse should wear an overall when attending to the patient, and should gargle her own throat frequently with some antiseptic.

During the acute stage, absolute rest in bed is essential; limbs should be placed between sand-bags and a plaster case is sometimes used to keep the spine perfectly at rest.

To protect the affected parts from the weight of the bed clothes a cradle is used, and as there is a great tendency for the affected muscles to be overstretched by the opposing muscles, a splint is applied to the leg, or a sling to the arm, the aim being always to keep the muscles *relaxed* and so prevent deformities. For the same reason the patient should not be allowed to sit up during the acute stage. These prophylactic measures cannot be overstressed, as this disease is responsible for so many deformities of childhood.

Owing to injury of the trophic nerve centres, nutrition is impaired, and circulation to the affected limbs is poor. In order to promote nutrition, warm woollen socks or wool and flannel bandages should be applied, also hot bottles or hot sand.

Bedsore are very apt to occur, and so great care must be taken of all the pressure points by frequent attention.

Other nursing treatment consists in care of the mouth, ensuring a regular action of the bowels, and attention to general hygiene; a light but nourishing diet should be given. Drugs are not of much value in this disease. Hexamine is sometimes ordered as a spinal disinfectant, and injections of morphine if the pain is very severe.

After the acute stage has passed, massage and passive movement are most valuable, and should be carried out regularly, as there is hope of complete recovery up to two years from onset of disease; the child must be encouraged to use the paralysed limb and to walk with the help of pexulloid splints which, though very light, give the necessary support to the limb. At all times warmth is very important to the paralysed part. After two years, if paralysis is still present, orthopaedic treatment is resorted to in dealing with the deformities caused by this disease.

Chronic poliomyelitis also is a lesion of the lower motor neuron, causing progressive atrophy of the muscles, and should perhaps be mentioned, though it is a rare disease, and is a disease of middle life due to chills, affects men more than women, extends over a long period, and terminates fatally.

HONOURABLE MENTION.

The following competitors receive honourable mention: Miss Olga Margaret Woods, S.R.N.; Miss E. A. Noblett, S.R.N.; Miss Gertrude Hilder; Miss Amy Phipps; and Miss Margaret Milner, S.R.N.

Miss Margaret Milner writes of Poliomyelitis: "It more frequently affects young children, and occurs six times more often in the first ten years than in the remainder of life. It has been attributed to colds and falls, but there are many facts in favour of its being of an infective nature. It has occurred during convalescence from acute diseases, immediately after attacks believed to be influenza, and in women during the puerperal state.

The onset is often sudden, but the paralysis is not generally noticed for one, two, or three days. The early symptoms are different in different cases. There may be feverishness or convulsions, or severe pains, either general or localised in the limb or limbs that are afterwards paralysed, or the child may go to bed well, and be found paralysed in the morning. Both pains and feverishness are often present together, and the pain may persist some days. The way in which the paralysis itself begins is also variable, it may show itself in one limb, and within two or three days affects others; on the other hand, sometimes all four limbs are paralysed at first, and recovery rapidly takes place in one or two leaving the others permanently affected."

QUESTION FOR NEXT MONTH.

Of what conditions may vomiting be an indication? What care should a patient receive when vomiting, and what special points would you note and report?

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