

OUR PRIZE COMPETITION.

WHAT DO YOU KNOW OF RICKETS, THE PRINCIPAL CAUSES, THE MEANS TAKEN FOR ITS PREVENTION AND CURE, AND THE NURSING CARE?

We have pleasure in awarding the prize this week to Miss Margaret M. Cornock, "Treloar," Kingsway, Woking.

PRIZE PAPER.

Rickets is a very grave, but entirely preventible, disease of infancy. It is essentially a disease of malnutrition, affecting all the tissues of the body, but especially the bony tissues, which become soft and pliable. Although it is most prevalent among the children of the poor, particularly of those who live in the crowded sunless areas of our big cities, it also occurs among children of the richer classes when the laws of hygiene are disregarded. It has been estimated that from fifty to sixty per cent. of the children attending clinics show some evidence of the disease.

The signs of rickets most usually manifest themselves between the ages of six and eighteen months, though in rare instances children have been born with it.

In its earliest stages the patient may show great restlessness during sleep, there will be profuse sweating about the head, also much pallor and anæmia, with markedly poor muscular tone. Constipation is frequently present. Dentition is greatly delayed. Next, bony changes become apparent. Little bony prominences may be felt at the junction of each rib with the sternum forming what is known as "the rickety rosary." Upon the frontal and parietal bones appear thickened eminences, the marked grooves between these four "bosses" exhibiting what has been aptly described as "the hot cross bun" head, and which gives that characteristic squareness to the head so suggestive of the disease. In addition, the fontanelles remain open, sometimes even until the third year. The chest becomes depressed and misshapen, the pull of the diaphragm tending to draw the soft ribs inwards.

Partly owing to constipation and also to lax muscles, the abdomen becomes large and protuberant. The long bones show changes in the thickening which takes place at the epiphyses, and is most noticeable at the wrists and ankles. The pull of the muscles alone causes them to curve even before the child has begun to walk.

The damage to the pelvis is, in the female, a further serious matter, and gives rise to great difficulty and danger in her subsequent child-bearing.

The causes of rickets may be classified under the following three headings:—

1. Incorrect and ill-balanced diet, in which the starchy constituents unduly preponderate over the proteins and fats.
2. Lack of fresh air and sunlight.
3. Insufficient exercise.

Its prevention consists in ensuring every child these essentials.

Whereas formerly it was considered to be almost entirely a disease of improper feeding, modern research shows that lack of sunlight and exercise are even more potent factors in its causation.

The best anti-rachitic diet for infants is, of course, *breast milk*. No infant suckled by a *healthy* mother

develops rickets unless the milk is poor or the period of suckling unduly prolonged; therefore do all possible to establish and maintain breast feeding.

Patent foods and sweetened condensed milk must be shunned in artificial feeding, as they mostly contain an excess of carbohydrates.

Some preparation of cod liver oil should be added to the feeds, it being one of the most valuable and readily assimilated of anti-rachitic constituents, and takes the place of cream, which, to be reliable, remains beyond the means of poor folk.

Attention should be given to clothing, which should be warm, but light and loose, allowing complete freedom of movement to every part of the body.

Infants should sleep in light airy cots and out of doors as much as possible, in sunshine, though shaded from fierce rays, and never in the deep well of an American-cloth-lined perambulator in a stuffy kitchen, as is too frequently seen. Opportunity should be given for regular kicking exercise.

In the earlier stages the disease can be cured by the careful adjustment of diet and exercise.

Daily massage, which helps to tone up the muscles and improve the circulation, is of valuable assistance. Preparations of phosphorus and lime salts may, perhaps, be prescribed to assist bone formation. The child should be discouraged from attempting to walk, and to this end light splints may be applied, massage and passive moments supplying the place of other exercise.

In cases where, however, the deformity is of longer standing, much bowing of the legs, knock-knees, &c., surgical measures will be required, but this will be delayed until the bones have become hardened, usually after the fifth year.

HONOURABLE MENTION.

The following competitors receive honourable mention: Miss A. M. Burns, Miss A. F. Worcester, Miss J. Wall, Miss P. Thomson.

An admirable paper by Miss Amy Phipps arrived too late to be judged in the competition. Miss Phipps writes:—

Treatment is largely prophylactic, and the value of the work of the intelligent Health Visitor cannot be over-estimated in this respect, and this both in her ante-natal and post-natal work. To this end, the ante-natal care of the mother in detail is of vast importance. In connection with the child, prevention should be arrived at by securing regularity of feeding, sleeping, exercise, motions of bowels, &c., absolute cleanliness of child, clothes, surroundings &c., and abundant supply of moving fresh air, day and night, avoiding draughts, light, warm, non-constrictive clothing, breast feeding wherever possible, or otherwise, foods containing the necessary vitamins, &c., in a digestible form, and a good supply of pure water. Further, the child must be "mothered."

Under suitable conditions sunlight treatment has a marked beneficial effect upon these children, this being assisted by artificial sunlight by means of the arc lamp when necessary.

QUESTION FOR NEXT MONTH.

Describe the symptoms, diet, and nursing care of a case of acute nephritis.

[previous page](#)

[next page](#)