

WORMS IN CHILDREN.*

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GENTLEMEN,—The first case that I shall show you has the following history:—

This child, aged four, healthy at birth, raised from the breast, was well until it reached the age of ten months. Since this time it has been troubled with cough. The cough is decidedly worse at night. It expectorates very little. Appetite sometimes very good, at others poor. Very restless in its sleep.

Notice, please, that the cough is worse at night; this is important from a diagnostic standpoint, for whenever you have cough which is more troublesome after the patient has retired, think of its being reflex in nature. By that I mean a cough which has as its cause not an irritation in the lungs, but at some distant point. As example, we have reflex coughs from ear disease, worms, indigestion, etc. The pupils are somewhat dilated in this case, and the pulse irregular. With such a history as this in a child, think of worms, but remember this, that there is no single symptom except the finding of worms in the stools, which is diagnostic of them. In this child one worm was passed after the administration of proper remedies, since the expulsion of which the child sleeps well at night, appetite is good, and the cough has disappeared.

Lumbricoid worms are found generally in the jejunum and ileum, but they wander wherever they can. Then they have been found in the stomach, œsophagus, larynx and trachea. One even travels into the right bronchus. The mouth, nose, biliary and pancreatic ducts, and gall-bladder have in different cases been occupied by these worms. A case is reported where a worm worked itself into the vermiform appendix, causing erosion and finally perforation with its consequent symptom.

If worms are present in the alimentary canal, there is always an abundance of mucus present. A gastro-intestinal catarrh also exists. This is due to the moving about of the worm. In fact, I doubt very much if the lumbricoid worm can live if these two conditions are not present.

Whenever you have in a child over two years a pallid face, unequal dilatation of pupils (which is said by one authority to be more common than equal), an appetite which varies,—one day good and the next poor,—restless at night, grinding its teeth in its sleep, etc., colicky pains, and a distended abdomen, think of worms.

Treatment.—In this case the following prescription was given, after which a dose of oleum ricini was exhibited:—

R Hydrargyri chloridi mitis,
Santonini, aa gr. iv. M.
Fiant chart v.

Sig.—One powder three times a day.

Since every female worm has the power to create sixty million worms, whenever only one or two worms are passed, we should always be suspicious that more are present, and I believe that in any case it is a good rule to continue the treatment for a short time after the expulsion of the worms.

A prescription which I like very much is this:—

R Santonini, gr. viij
Ext. spigelæ et sennæ fluid., f 3j Mj

Sig.—One teaspoonful three times a day.

This should be followed by a dose of castor oil. The further treatment of lumbricoid worms is to correct the diseased state of the mucous membrane. The diet should be carefully regulated, only the most digestible and non-irritating food being taken, such as milk broths, etc. Of drugs, ten-drop doses of dilute hydrochloric acid with a little pepsin are generally sufficient to bring about the change.

Children become infected with lumbricoid worms by drinking water containing the eggs, or by eating food to which they are adherent. These eggs then develop in the system into the worms. In the case of the tapeworm, the life history is a little different. The eggs are passed in the stools of the patient. The development of these eggs takes place not in the human system, but in one of the lower animals—in the case of the *tænia solium* in the hog, and in that of the *tænia mediocanellata* in beef. In the muscles of these animals are developed cysts—the so-called *cysticerci cellulosa*—which contain the embryo of the tapeworm. Now, when a person eats raw or imperfectly cooked meats of animals which are infected, these cysts develop into the tapeworm.

When treating a patient with a tapeworm, unless you succeed in removing the head, a cure will not result, for the segments grow from the head. Now, there are two ways of looking for the head in the passage. One is to pour some carbolic acid (to destroy the odor) and water into the vessel; then do not stir with a stick, but merely shake; allow to settle, and pour off all but the sediment. Continue this until all faecal matter is removed, then examine the sediment for the head. Another way is to pour the passage into a piece of muslin. On this pour water, and continue doing so until all faecal matter is washed out, then examine residue for the head. If you do not find the head you cannot be safe that the worm will not return until three months have elapsed.

Treatment of Tapeworms.—The Germans have discovered three articles of diet which are obnoxious to worms, viz., onions, garlic and hering; of these they make a salad.

Before giving any medicine for a tapeworm the patient should fast for twenty-four hours, taking only a little milk and water or a little

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