UNCINARIASIS IN PREGNANCY.*

BY

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LITTLE has been written on this subject in so far as I can find in a review of the recent literature. It seems but yesterday when Stiles made his first trip to the South and interested us by his demonstration of the comparative figures of the infection. It is strange that some of us interested in obstetrics should not have called the attention of the profession to the frequency, in the Southern States, of this by no means uncommon condition during pregnancy. Bass, in his work, only refers in four lines to the ill effect it has on the pregnant woman and the similar effect on the development and nutrition of the child; and in another reference warns against the use of thymol, as a dangerous drug to use before the birth of the child, but calls attention to its benefits during the puerperium.

Any one with experience can almost make a diagnosis of these cases at a glance—the pale, cadaverous, sallow individual of the chronic malarial cachectic type, or "clay eater" as they used to be termed, has hookworm stamped on the face. A microscopical examination of the stool or a washing of one through cheese cloth will certainly reveal the characteristic ova or the worm itself in large numbers. It is not until the latter months of pregnancy that the result of the toxemia caused by the presence of the parasite in the intestine with its resulting deleterious effect of toxin absorption through the wounded mucosa, is in evidence. The woman becomes more anemic, pale and listless, the conjunctivæ more pearly white, the breathing more difficult as the uterus rises higher, until it becomes a dyspnea. The lower extremities grow edematous and gradually her condition more and more alarming until finally it is evident that something must be done to relieve her desperate plight. It is here that the marked similarity of the condition to one of the toxemias of pregnancy is apparent. But there is no resemblance to acute yellow atrophy of the liver, for the condition is a slow, progressive one and the sallow cachectic appearance of the skin is unlike the icterus of yellow atrophy. There is

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no nausea or vomiting or acidosis as in hyperemesis or in chronic duodenal ulcer near term, but there is every similarity to the hepatic or nephritic type of toxemia in which we find boggy edema, flashes of light before the eyes, headaches, marked anemia, sallow complexion, constipation, scanty urinary secretion, dyspnea on exertion and the various other symptoms of these disorders of pregnancy.

The differential diagnosis is easy: the peculiar sallow complexion of the "clay eater" is present; the ova are easily distinguished in the stool or the worms secured by washing the stool thoroughly. A history of living in the country and the high eosinophilia are always present. The blood pressure is low (systolic from 90 to 95), and the urine is fairly clear.

As labor comes on, unless the patient is a multipara, with a normal position, it is only a matter of a few hours before it becomes evident that one has to deal with a sluggish uterus and that assistance must be rendered.

Of all the puerperal conditions that sepsis is most apt to make its appearance in, this I think is the most likely, for there is little resistance to infection. Many of these women die in the mill and factory homes as a result of the squalor and filth and their absolute inability to resist infection.

The object of this paper is to call the attention of the profession to this type of toxemia during pregnancy, which closely resembles some of the toxemias of pregnancy itself, and to emphasize the fact that we can with perfect safety give chenopodium oil with castor oil, during the pregnant condition and secure a healthy strong mother in a reasonably short period of time without the risks of thymol. I also desire to urge the early treatment of these cases with this drug, accompanied by the intelligent use of arsenic or iron as tonics.

The following differential diagnostic table may prove of value:

	In eclampsia.	In uncinariasis.
Social condition and occupations.	A disease respecting no woman; most common in primiparæ and the illegitimately pregnant.	Chiefly seen among the poor, especially those employed in mills and factories, who live in settlements and whose earlier life can be traced to rural districts, *i.e.*, "ground itch."
Kidneys.	Low urea, albumin, casts.	When associated with edema; albumin, very few casts.
Blood pressure.	High.	Low.
Blood.	No eosinophilia, hemoglobin percentage possibly low.	Eosinophilia; 15 to 30 per cent. of whites a good prognosis, hemoglobin percentage always low and associated with dyspnea

		and cardiac palpitation when very low.
Stools.	No ova and worms.	Ova plentiful, worms also.
Heart.	Functional murmurs not the rule.	Very common.
Pigmentation.	Normal.	More marked, especially the mask of pregnancy.
Edema.	Boggy.	Boggy, but more general and more transparent, eyelids.
Babies.	Normal, if mother goes to term.	Small weazened, has little fat, premature and often die of atelectasis.

Treatment.—The treatment as mentioned is American worm seed, chenopodium. "Fifteen drops of the oil, two doses, one hour apart" repeated every week for three or four weeks and followed in each instance by a laxative.* Good nourishing food and removal from poor hygienic surroundings is essential. For this reason I try to get these patients into a maternity ward early and keep them there because they undoubtedly get better food and are kept in a cleaner condition than in their own homes. The treatment can be instituted at any time during the pregnancy and the response is usually prompt. If desired after the puerperium, thymol may be given in the usual adult three doses about one hour apart preceded and followed by two ounces of magnesium sulphate and the avoidance of fats, oils or alcohol.

The following are a few cases illustrative of the above paper:

CASE I.—Mrs. H. W., white, aged twenty-three, primipara. Childhood spent in country. Practically all the diseases of childhood. Before marriage worked in a bagging mill and lived in its settlement. When eight months pregnant, her physician called me as a consultant. Urine loaded with albumin, few casts, blood pressure, systolic 96. Dyspnea marked, legs and thighs and vulva very edematous. Anemia marked, eyelids and lips bloodless. She complained of dizziness and flashes of light before her eyes. Position, transverse, L. sc. a. Advised instituting labor with Vorhees bags, which was done, resulting eventually in podalic version. The baby was very small, atelectatic and died on the fifth day. The mother took the thymol treatment, which resulted in a cure and has since been delivered of a healthy child. This case could have been treated with oil of chenopodium and resulted differently.

CASE II.—Mrs. M., white, aged twenty, primipara. Came to the city from the country six months ago. History of ground itch. History practically same as the above case except that she was not quite as anemic. I met her in the obstetrical ward when my service

*Remember that a minim of oil of chenopodium equals almost three drops, hence the reports of toxic symptoms following its use.

began. She was almost at term and presented every external evidence of an approaching eclampsia. Chenopodium was given her but as she went into labor two days later there was not time enough for improvement. The labor was long and tedious. The uterus very sluggish, she was not able to deliver herself and as dyspnea was so severe, a medium low forceps was done. The baby was small and in poor condition. She left the hospital on the twenty-first day, after a thymol treatment and using a ferruginous tonic, in fairly good shape. The baby had improved but was under weight. I have since lost sight of her.

CASE III.—Mrs. B., white, aged thirty, six months pregnant when admitted to the ward. Symptoms and history identical with the others save that her hemic mitral blow was worse and her systolic blood pressure was 94. She was given chenopodium in capsules followed by castor oil as described in the paper and also a strychnine, digitalis and iron pill. She improved very much, blood pressure rose to 104, albumin cleared up. Hemoglobin went to 80 per cent. by the third week when she left the hospital upon her own request. Her subsequent history was a normal delivery at her own home in the mill village. The infant died during the first summer. The mother's condition still remains good.

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