CORRESPONDENCE

Bertiella infestation in a Nova Scotia child formerly resident in Africa

To the Editor:

Cestode parasites of the genus Bertiella are not infrequently found in the intestinal tract of primates. Human infestation was first reported in 1913 from Mauritius by Blanchard,[1] who identified the head and segments of this tapeworm in the feces of an 8-year-old Creole child and named it *Bertiella satyri*. Subsequently the genus has been reported in man some 27 times, primarily from tropical and subtropical countries, but once from Fargo, U.S.A. in a person recently returned from Africa.[2] Species within the genus are not clearly delineated, so that identification only to genus is possible. To our knowledge the following account is the first report of the cestode genus Bertiella from Canada.

In July 1969, the parents of a 2½-year-old boy living in Nyankunde, Bunia, Republic of Congo, presented him with a small *Macaca mulatta* (rhesus) monkey as a pet. In November 1969 the boy and his family returned to Canada. Prior to their departure from the Congo stool examinations for ova and parasites were negative.

In December the mother noticed that he was passing sections of a flatworm. When examined on January 5, 1970, the boy was found to be well nourished and with a good colour. He had small, cryptic tonsils and small palpable cervical lymph nodes. The lungs and heart were normal and there was no abdominal tenderness or distension; liver and spleen were not palpable.

Between January and May 1970 three courses of quinacrine hydrochloride (Atabrine) were given, followed by magnesium sulfate, but these failed to expel the worm. However, in July the boy passed a segment of worm 10 to 12 inches in length. A few days later he was given Yomesan, obtained through the International Medical Service, Toronto. No ova or segments have been detected in his stools since that time.

Parasitology—A number of specimens containing segments of tapeworm whose total length was about 150 mm. were received at the Pathology Institute, Halifax. No head was found. The segments were approximately 6 mm. wide by 0.5 mm. long by 1 mm. thick. Fig. 1 shows a length containing 27 proglottids as it appeared after overnight relaxation in cold saline solution. Fig. 2 shows a segment containing 24 proglottids which was fixed, after relaxation, in Bouin's fluid: an irregularly alternating genital structure is evident.

Microscopic examination of stool specimens and proglottids revealed many ova which ranged in size from 45-47 μ. by 48-50 μ. (Fig. 3). Each ovum contained a pyriform apparatus with an average measurement of 16 μ. in width and 29 μ. in length. Inside the pyriform apparatus was a round oncosphere measuring 16 μ. Three pairs of hooklets could be seen in a large proportion of those examined. It was noted that the cytoplasm of the oncosphere had a rhythmic motion, turning about a third of a circle with the hooklets fanning out, and then returning to their original positions.

The morphology of the ova and proglottids agreed with the description of the genus Bertiella, family Anoplocephalidae, by Faust, Russell and Jung (1970).[2] This was confirmed by Dr. E. Meerovitch, Associate Professor, Parasitology, Macdonald College of McGill University.

According to Stunkard[3] the Anoplocephaline cestodes use free living mites, which live in soil or on vegetation, as intermediate hosts. Eggs from gravid proglottids obtained from a monkey, *Macaca mulatta* were fed to 24 species of mites. Oncospheres and developing larvae were recovered from the body cavity of *Notaspis coleoptratus, Scutovertex minutus, Scheloribates laevigatus* and Galumna sp. of mites.

The mother of our patient showed us a photograph of the boy hugging the monkey, which was his pet for the summer months in 1969. He also owned a dog at the same time. Neither could be checked for tapeworm, as both animals are now dead. Stool specimens from two brothers and a sister of the patient were examined, but no tapeworm proglottids or ova were found.

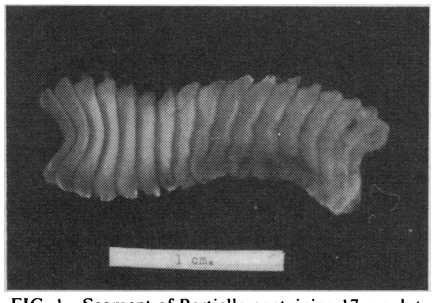

FIG. 1—Segment of Bertiella containing 17 proglottids as it appeared after overnight relaxation in cold saline.

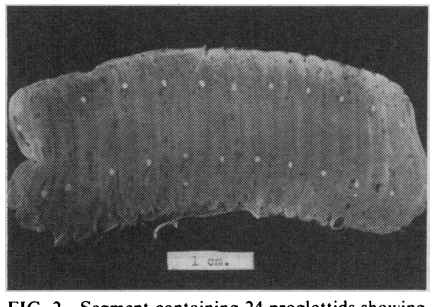

FIG. 2—Segment containing 24 proglottids showing the irregularly alternating genital structure. (Fixed in Bouin's fluid.)

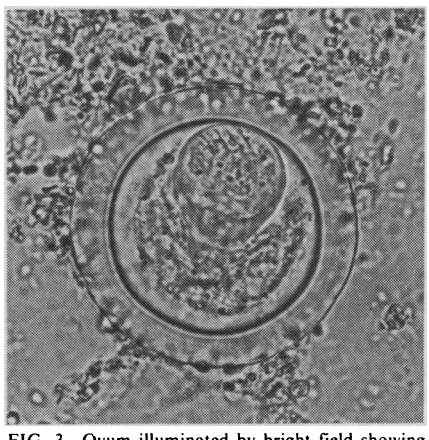

FIG. 3—Ovum illuminated by bright field showing pyriform apparatus. (Unstained, X 960.)

Regina Jones, R.T.
Helen Hunter, M.D.
and C. E. van Rooyen, M.D.

Section of Parasitology,
Division of Laboratories,
Department of Public Health;
and
Department of Pediatrics,
Dalhousie University.

Photomicrography by F. Stefani, Department of Microbiology, Dalhousie University, Halifax, Nova Scotia.

References

1. ADAMS AR, WEBB L: *Ann Trop Med Parasitol* 27: 471, 1933
2. FAUST EC, RUSSELL PF, JUNG RC: *Craig and Faust's Clinical Parasitology*, eighth ed, Philadelphia, Lea & Febiger, 1970
3. STUNKARD HW: *Amer J Trop Med* 20: 305, 1940

"Silent" uterine rupture during labour

To the Editor:

Uterine rupture is usually thought of as a dramatic event associated with obvious signs of maternal shock and often fetal demise. However, several authors have emphasized how often the signs are slow to develop; the resulting delay in diagnosis may be disastrous.

We report here a case of complete uterine rupture associated with the use of oxytocin (Syntocinon) in labour. Although the condition was suspected during the first stage of labour, there were no grounds for its diagnosis. It was discovered by chance three days post partum at tubal ligation.

The patient was a 25-year-old multipara. Her past obstetric history was of two uncomplicated pregnancies culminating in spontaneous deliveries of infants weighing 6 lbs. 12 oz. and 7 lbs. 2 oz. Between these two pregnancies she had had an incomplete abortion at 14 weeks gestation followed by evacuation of the uterus. Her prenatal care had been carried out by her own practitioner and, apart from two minor

(Continued on page 615)