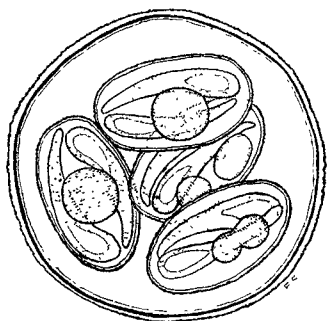


## ANOTHER HUMAN COCCIDIUM FROM THE MEDITERRANEAN WAR AREA.

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IN my paper which appeared in THE LANCET for Nov. 27th and the addendum to this paper in the number for Dec. 11th I described the extracorporeal development of the oöcyst of a coccidium which was to be found in the faeces of dysenterics invalided from Gallipoli. The production within the oöcyst of two sporocysts, each with two sporozoites, proved that the coccidium belonged to the genus *Isospora*. Curiously enough, in the course of further examinations I have encountered an entirely different coccidium which, because it produces within the oöcyst four sporocysts, each of which has two sporozoites, and a residual body must be placed in the genus *Eimeria* (Coccidium). The best known species of this genus is the coccidium which infects the intestine and liver of rabbits. The coccidium now encountered in the Gallipoli cases for the first time differs from the rabbit parasite, in that it produces an oöcyst (see Figure) which is almost spherical,



Oöcyst of *Eimeria* with four sporocysts, each with two sporozoites.

with a diameter of about 20 microns. In this respect it resembles the *E. falci-forme* of the intestine of the mouse. The outer surface of the oöcyst is not smooth and is covered with irregularities in the shape of small nodular elevations and ridges. The inner surface is smooth and is lined by a delicate membrane. The four sporocysts measure about 10 by 7

microns, while their outer surfaces are also rough, though the irregularity is not so marked as on the oöcyst. Within each sporocyst the two sporozoites lie with their blunt ends at opposite poles, and there are one or two residual bodies which are highly refractile and of a greenish tint in the living coccidium. Though this coccidium resembles most nearly the parasite of the mouse, it is impossible to state definitely if it is actually this species or one quite distinct.

The question of the method of infection of man with both the *Isospora* and the *Eimeria* is one of much interest. It undoubtedly takes place by way of the mouth, but whether the dust, food, or water, or all three of these are involved, is a subject for further inquiry. The possibility of infection through association with animals which are passing the oöcysts in the faeces has also to be considered. It is worthy of note that in the case of the *Isospora* the oöcysts were passed in immature condition and that the further development was completed on the ground, whereas with the *Eimeria*, now described, the oöcysts were completely developed, as shown in the figure, when passed. This being the case, it is evident that direct infection or contact infection can much more easily occur with the *Eimeria* than with the *Isospora*, which has to undergo a period of extracorporeal development before it becomes infective.

## Medical Societies.

### ROYAL SOCIETY OF MEDICINE.

#### CLINICAL SECTION.

#### *Thrombotic Splenomegaly.—Anæmia and Purpura with Green Colouration of the Bone Marrow.*

A MEETING of this section was held on Dec. 10th, Dr. H. D. ROLLESTON, the President, being in the chair.

Dr. F. PARKES WEBER read a short paper on the sequel to a case of Chronic Splenomegaly of Uncertain Origin with Persistent Leucopenia, shown on Jan. 12th, 1912.<sup>1</sup> When the patient, a young married woman aged 23, was seen in January, 1912, the spleen reached for a good hand's breadth below the left ribs, but was not hard. The patient otherwise appeared well, though rather pale. The history was that after a confinement in August, 1910, she had suffered from pains in the loins, headache, and giddiness. The splenic enlargement was first detected in October, 1910. The blood count then showed leucopenia, the red cells being 4,850,000 and the white cells 2575 per c.mm. At the end of October, 1910, owing to sudden severe abdominal pain and to the presence of free fluid in the peritoneum, an exploratory laparotomy was performed, but nothing abnormal was discovered excepting some ascites and enlargement of the spleen and liver; the capsule of the spleen was adherent to the surrounding parts; the peritoneum looked very hyperæmic. The patient recovered from the operation and the ascites, but, whilst in the hospital, occasional moderate fever was noted. She left the hospital in November, 1910. The Wassermann reaction and von Pirquet's cuti-reaction were both negative. Blood counts were made on various occasions, and always showed more or less leucopenia. In February, 1913, the Wassermann reaction was again found to be negative. She remained fairly well until the end of 1914, when she had three severe attacks of hæmatemesis in three days. At the commencement of January, 1915, she began to suffer from shortness of breath, dryness of the throat, and swelling of the legs, and about two weeks later she was admitted to the London Hospital, where she died on the following day. Dr. H. M. Turnbull kindly furnished a careful account of the macroscopic and microscopic post-mortem findings, which showed that the splenomegaly was of thrombotic origin. There was evidence of old obstruction in the portal and splenic veins, with more recent thrombosis in addition.

Dr. WEBER also contributed a note on a case of Anæmia and Purpura with Greenish Colouration of the Bone Marrow and its bearing on the question of the causation of the green colour of chloroma and the so-called chloro-leukæmia. The patient was an anæmic woman, aged 34 years, who died in December, 1914, about an hour after spontaneous delivery of a dead child, apparently at nearly full term. The immediate cause of death seemed to be exhaustion, as the loss of blood connected with the delivery was not excessive. The patient's urine had contained some albumin and granular casts. A blood-count had given: red cells, 1,280,000 per c.mm.; white cells, 9200; in stained blood films many nucleated red cells were seen; the erythrocytes showed a little poikilocytosis and polychromatophilia; no differential count of the white cells was made. The Wassermann reaction was slightly positive, but there was no history of syphilis. The patient, who likewise suffered from favus of the hairy scalp and of the glabrous skin of the back of the thorax, was said to have been always weakly and subject to headaches, and to have had a slightly yellowish tinge of skin, but she had been especially weak and ailing for the past two years, during which time she had had four or five bad attacks of epistaxis, the last one only about two weeks before her death. She was married 10 years ago. Her first child, a girl, was born nine years ago and died after two weeks. Her second child, a girl, was living and healthy, aged 7 years. The patient was said to have had an abortion at the third month of pregnancy about 2½ years ago, and a

<sup>1</sup> Proceedings of the Clinical Section, 1912, v., p. 113; THE LANCET, Jan. 20th, 1912, p. 164.