

## Ovarian Paragonimiasis

— A case report —

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The authors report a case of ectopic paragonimiasis in a 33 year old Korean housewife who came to the hospital because of lower abdominal discomfort and palpable mass. Parasitic granulomas involved the ovary and posterior wall of the uterine body. This report deals with the rare occurrence of a parasitic infestation in the ovary.

**Key Words:** *Paragonimus westermani*, ovary

### INTRODUCTION

It is a well known fact that *Paragonimus westermani* causes ectopic parasitism at various sites in human hosts. Major clinical problems of the ectopic paragonimiasis are related to the involved tissue or organs. Accordingly, the clinical manifestation is protean and frequently causes serious differential diagnoses of neoplastic disease. The authors present a case of ovarian paragonimiasis in regard to its rare site for parasitic infestation.

### CASE REPORT

A 33 year old housewife was admitted to the Kyung Hee University Hospital due to lower abdominal discomfort and palpable mass for a 1 month duration. Pelvic sonogram revealed an irregular, marginated, ovoid, solid mass with multiple cystic necrosis at the left adnexal area. During the operation, the left ovary was found to be enlarged to over

walnut size and tightly adhered to the posterior wall of the uterus. By surgical observation and frozen section, the mass was proved to be the ectopic parasitic granuloma. The patient underwent left adnexectomy, and adhesiolysis.

The excised ovary measured 5 cm in the largest diameter and cut surface showed multicystic lesions containing chocolate colored necrotic materials. Microscopically, there were two types of lesions: one was characterized by large foci of necrosis with ragged margins and containing amorphous eosinophilic debris in which numerous Chacort-Leyden crystals were included (Fig. 1). The wall of these necrotic lesions consisted of palisading histiocytes, fibroblasts and a varying number of eosinophils (Fig. 2). This lesion was thought to be made by an advancing parasite worm. The other type of lesion was widely scattered throughout the affected portions of the removed specimen and was associated with eggs (Fig. 3).

There was characteristic, concentric, laminated, fibrocollagenous bundles around intact or degenerating ova. Foreign body giant cells were often seen. The necrotic lesion contained numerous

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Fig. 1. Ovarian stroma shows ill defined geographical granulomas (H-E, X10).

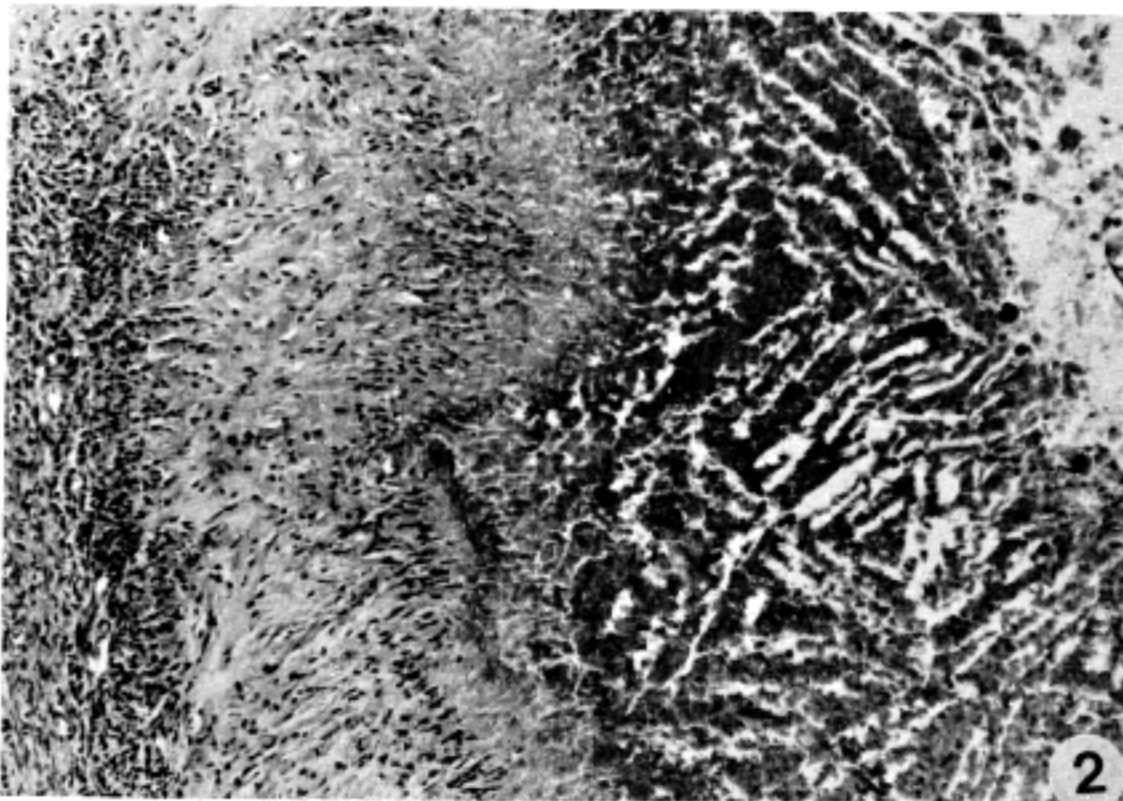


Fig. 2.

eggs and the wall had ragged margins with palisading histiocytes (Fig. 4). In the ovary, there were numerous thick, two-layered cuticles of the parasite and they were very refractile. There were numerous omental lesions showing identical histologic features such as those of the ovarian lesions. With the diagnosis of ectopic paragonimiasis, the skin test for the paragonimiasis and clonorchiasis was done. The paragonimus lesion was  $4 \times 4/9 \times 9$  mm and the

clonorchis lesion was  $4 \times 4/5 \times 6$  mm in diameter. The paragonimus lesion was regarded as positive.

## DISCUSSION

Paragonimiasis, caused by *Paragonimus westermani*, is an important disease of man in Japan, Korea, Taiwan, Central China, and the Philipphines, and occurs with lesser frequency in Manchuria,

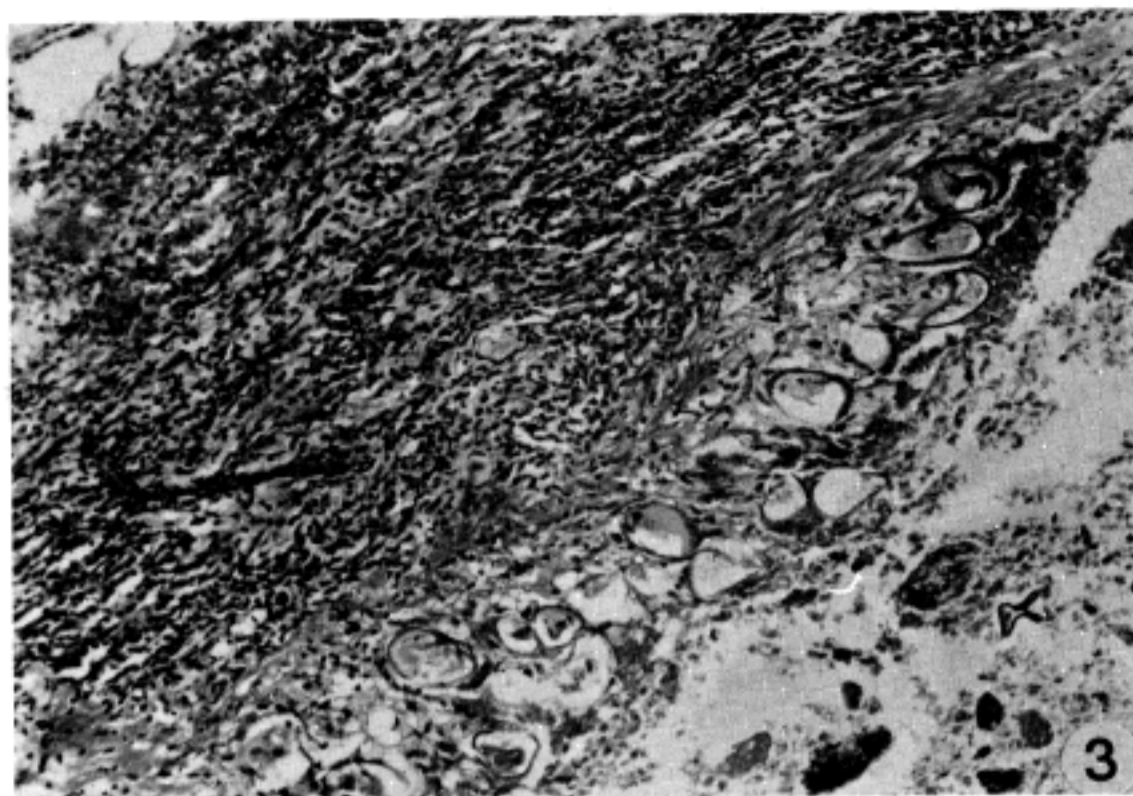


Fig. 3. Numerous eggs of *paragonimus westermani* are seen along the inner walls of the cystic granuloma cavity (H-E, X200).

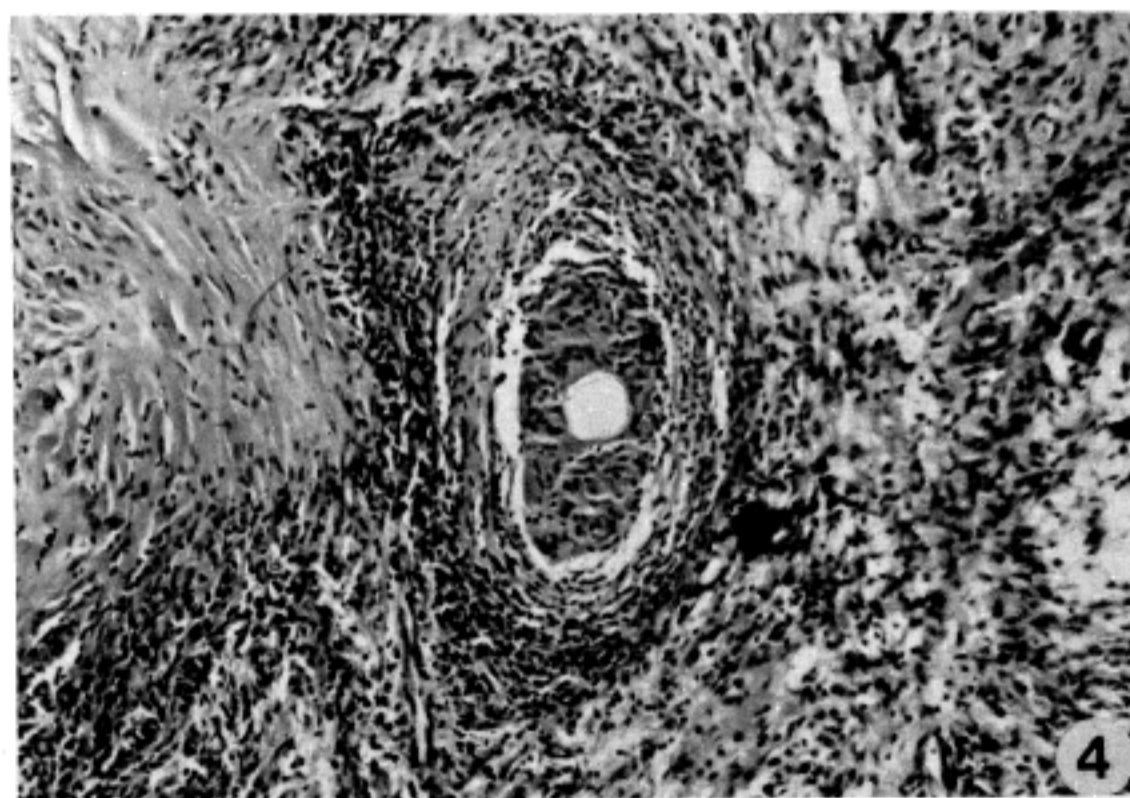


Fig. 4. A small granuloma containing an egg of *Paragonimus westermani* (H-E, x100).

Southeast Asia, and Nepal. Paragonimiasis is essentially a pulmonary disorder, but may also be found in other parts of the body, including brain, spinal cord, orbit, mediastinum, abdominal wall, greater and lesser omentum, mesentery, retroperitoneal organs, epididymis, scrotum and hernia sac, etc. The case of ovarian involvement of paragonimiasis is quite uncommon. In 1959, Hsu et al<sup>1)</sup> described two cases of ectopic paragonimiasis of female genital organs in

Taiwan; one was a myometrial invasion and the other was involved with the abscess formation in the left ovary. In Korea, in 1968, Chung and Kim<sup>2)</sup> reported a case of ectopic paragonimiasis in an infertile woman who had paragonimus nodules in the uterine wall, ovary, salpinx and accessory ligaments.

In 1982, Hong et al<sup>3)</sup> described a case of systemic paragonimiasis including ovary. So this may be the fourth reported case of the ovarian-involved para

gonimiasis. The worm migrates through the abdominal cavity normally before it penetrates into the pleural cavity. Ovarian involvement is regarded by direct invasion of the worm through the ovarian capsule during the migration period. Presumably, the larvae penetrate tissues by enzymatic digestion of host tissues. Although paragonimiasis is one of the rare diseases in the gynecology field, it can bring various clinical manifestations up to infertility. Also, this ovarian involvement in the case causes a tumor mass that is hardly differentiated from ovarian cancer clinically.

### 참 고 문 헌

- 1) Hun CT, Ma YM, Wang TT: *Paragonimiasis involving female genital organs, report of two cases. Obstet Gynecol* 14:461, 1959

- 2) 정종진, 김용한 : 불임을 초래한 *Paragonimus westermani*의 이소기생. 대한의학협회지 11:765, 1968
- 3) Hong ST, Lee SH, Chi JG, Jin YS, Kim CS, Chang YS: *A cases of systemic paragonimiasis with ovarian involvement. Korean J Parasit* 20:53, 1982

— 국문초록 —

### 난소에 발생한 이소성 폐흡충증

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강신몽 · 박용구 · 이주희 · 목정은 · 양문호

난소를 침범하는 폐흡충의 이소기생은 극히 드물며 지금까지 국내와 대만에서 총 3예의 보고가 있을뿐이다. 이소기생 폐흡충증에서 충란과 충체에 의한 종물과 침범된장기 특유의 합병증 등이 나타나며 진단이 어려운 점 등이 그 동안 문제시되어 왔다. 저자들은 근간 33세 여자환자에서 난소에 발생한 이소성 폐흡충증 1예를 경험하고 보고하는 바이다.