

UTERINE CERVICAL CANCER ASSOCIATED WITH PELVIC PARAGONIMIASIS REPORT OF AN ADDITIONAL CASE

FU-YUNG LIU, CHENG-HSIUNG ROAN, and CHIEN-TIEN HSU

Department of Obstetrics and Gynecology, the Taipei Municipal
Chung-hsing Hospital, Taipei, Republic of China

The 7th case of pelvic paragonimiasis and second case of paragonimiasis associated uterine cervical cancer is presented. The right broad ligament and omentum involved manifesting as parasitic granuloma. Pathologically, it is an occult pelvic paragonimiasis detected and confirmed by pathological examination. Our present and past reports strongly indicate the necessity of gynecologists to keep constant vigilance for possible pelvic parasitic granuloma, which may occasionally simulate malignant metastatic nodules and lead to erroneous treatment.

At radical operation for a patient, age 54, G4 P4 with stage IIa uterine cervical cancer, three peanut-sized yellowish hard nodules were found on the posterior surface of the right broad ligament, and the omentum. Based on previous experiences, pelvic paragonimiasis was suspected and proved by pathological examination. This is the 7th case of pelvic paragonimiasis and the second one associated with uterine cervical cancer reported by us. This report is presented to attract more attention of gynecologists to parasitologic diseases in the pelvis in the subtropic and/or tropic zone such as this island is located in.

CASE REPORT

Mrs. Chang, age 54, Para 4, Gravida 4, Taiwanese, living in Hsinchu, was admitted on Aug. 15, 1973 with chief complaint of postcoital vaginal bleeding for several months. Cervical biopsy done by a local gynecologist confirmed the diagnosis of cervical cancer. Men-

arche started at 17 and menopause at 40. Past history revealed regular menses at 28-30 days intervals, for one week with moderate flow. Appendectomy was performed 16 years ago. No symptom nor sign suggestive of respiratory disease was noted in the past. Pelvic examination revealed an anteverted, atrophic uterus, negative adnexae, papillomatous cervix, ulcerated vaginal cuff and induration in both parametriae particularly the right side. On Aug. 17, 1973 radical operation was performed. At the operation, three well-defined hard nodules were found on the posterior surface of the right broad ligament and the omentum which were removed without any difficulties. Pathological examination (TPMC 73-7664) revealed epidermoid carcinoma of the cervix invading the right parametrium. The posterior vaginal cuff showed a picture of superficial ulceration and was free from cancerous invasion. Corpus uteri, left parametrium, both adnexae and regional lymph nodes were

all free from cancerous involvement. The three nodules on the posterior surface of the right broad ligament and omentum were confirmed to be parasitic granuloma. (Fig. 1, 2) Grossly, on the cut surfaces, they measured up to $4.3 \times 2.1 \times 1.0$ cm.³ and were yellowish in color. Microscopically, the eggs of *Paragonimus Westermani* were enveloped by dense fibrous tissue with focal calcification and chronic inflammatory cell infiltration mainly consisting of eosinophils. Postoperative search for the ova of *Paragonimus Westermani* in the sputum and stool failed. Postoperative course was uneventful and the patient was discharged on the 45th postoperative day.

COMMENT

The chief terminal habitat of adult *Paragonimus Westermani* is the lungs. However, ectopic lesion in the abdominal and pleural cavities, abdominal wall, mastoid region, spleen, liver, mesenteric lymph nodes, omentum, testes, intestines, brain, orbital cavity, muscle and skin may also be found. Furthermore, serious general symptoms such as headache, vertigo, nausea, intolerable abdominal pain and emotional change with remarkable eosinophilia in the peripheral blood were also observed. Paragonimiasis involving female genital organs must be extremely rare because it has never been reported in literature so far as we searched except for the cases reported by Hsu *et al* since 1952.⁽²⁾ Review of the previous 6^(1,2,3) cases of female pelvic paragonimiasis indicates that preoperative detection of the coex-

istence of parasitic infection and gynecologic disease was impossible. All the 6 cases of pelvic paragonimiasis were detected and suspected, at best, at operation and confirmed only by pathologic examination of the operative specimen after operation. Postoperative search for the ova *paragonimus Westermani* in the sputum and stool proved fruitless though two of the 6 cases had had the history of parasitic infection, skin test with V. B. S. antigen (Yokogawa)^(4,5) was variable and might remain positive for many years following recovery from infestation. Pathologic changes of *Paragonimus Westermani* are mechanical and can be divided into four types: nonsuppurative, tuberculosis like, suppurative, and ulceration. In the previous 6 cases of pelvic paragonimiasis, involvement of uterine body, omentum and peritoneum was manifested by parasitic granuloma; and the involvement of adnexa was manifested by tubo-ovarian abscess or tubo-ovarian cyst. The duration, after initial occult or evident infection, of such a condition of parasitic granuloma, tubo-ovarian abscess or tubo-ovarian cyst is not well determined. Clinically, parasitic granuloma is insidious and may manifest in common symptoms of abdominal parasitic diseases such as mild abdominal pain and diarrhea. Our one case with wide spreaded parasitic granuloma in the peritoneum led to ectopic gestation in fallopian tube. This is very rare and interesting. In our experience, the tubo-ovarian cyst, due to parasitic infestation is always associated with lower abdominal pain. But, tubo-ovarian

abscess is quite stormy as in acute abdomen associated with chill, fever and severe lower abdominal pain. One most interesting finding in adnexal involvement is that in two of our 6 cases were found to be sterile. Inflammatory reaction due to parasitic infestation must have caused the tubal occlusion. The association of paragonimiasis granuloma with cervical cancer offers another clinical significance in that the knowledge of such condition would enable the gynecologists to avoid erroneous treatment for pelvic malignancies.

In this present case the right broad ligament and the omentum were involved and also manifested by parasitic granuloma. The patient denied any symptom or sign suggestive of paragonimiasis in the past. Search for the ova of *Paragonimus Westermani* in the sputum and stool were also fruitless. Skin test with V.B.S. antigen (Yokogawa)^(4,5) test was not done in this case. The calcification spots in the right upper

lung field could not indicate definitely past parasitic infestation. This case is an occult type of pelvic paragonimiasis confirmed by pathologic examination of the operative specimen. As to the association with uterine cervical cancer, it may be merely coincidental.

REFERENCES

- (1) CHENG, Y. S. & HSU C. T.: Additional three cases of paragonimiasis involving pelvic organs. *O. G. China*, **8**; 192, 1969.
- (2) HSU, C. T., MA, Y. M. & WANG, T. T.: Paragonimiasis involving female genital organs, Report of two cases. *Obst. and Gynec.* **14**: 461, 1959.
- (3) HSU, C. T., MA, Y. M., WANG, T. T., HSIA, C. J., OU, LI, C. K. & CHANGCHEN, B. C.: Paragonimiasis der Weiblichen Geschlechtsorgane, Bericht Dreier Fälle. *J. F. M. A.* **61**: 503, 1962.
- (4) CHENG, Y. S. and HSU, C. T.: A Preliminary Survey for Paragonimiasis Involving Involving Pelvic Organs in Endemic Area, Hsinchu Hsien, Taiwan, *O. G.* **8**: 180-187, 1969.
- (5) WATTEN, R. H., KUNTS, R. F. & LIU, H. Y.: Use of Purified Antigen for the Detection of Paragonimiasis Westermanii and Clonorchis Sinensis in Peoples of Hsinchu Hsinchu Hsien, Taiwan. *J. F. M. A.* **59**: 364, 1968.

子宮頸癌合併肺吸蟲骨盤腔感染追加病例

臺北市立中興醫院婦產科

劉福勇 阮正雄 徐千田

著者等報告子宮癌合併骨盆腔肺吸蟲感染稀罕症例。此例為在臺灣或世界上第2症例，過去在市立中興醫院婦產科曾發見6例肺吸蟲之骨盆腔內感染其中有1例是與子宮癌合併。此

種肺吸蟲卵所引起的肉芽腫可能誤診為癌腫轉移，而引起治療方針之錯誤。肺吸蟲之骨盆腔內感染在世界上文獻迄今尙未有報告只我們發見7例。可算是非常稀罕的症例。

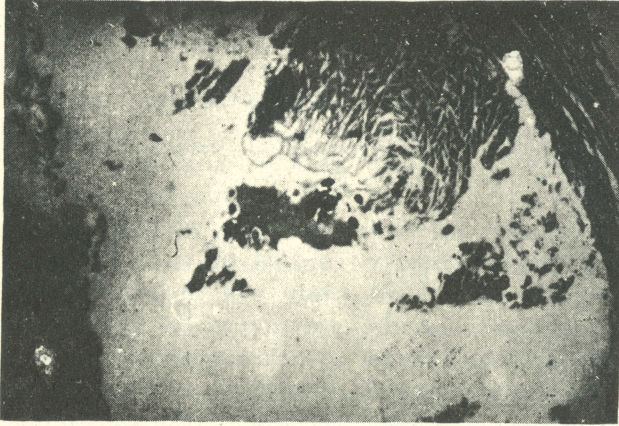


Fig. 1. Parasitic granuloma consists of calcified egg of *paragonimus westermani* and necrotic material surrounded by dense fibrous tissue.

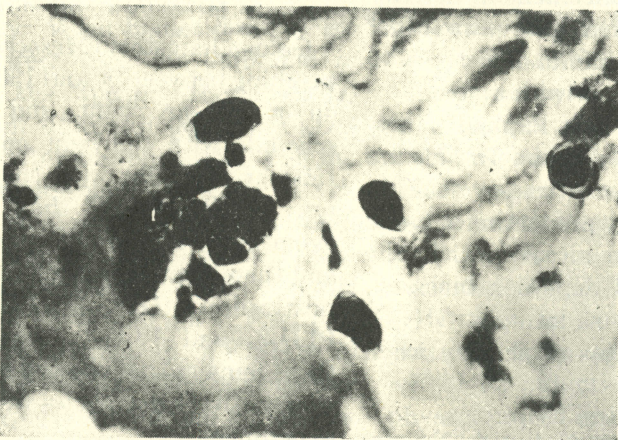


Fig. 2. Calcified eggs of *paragonimus westermani* in parasitic granuloma.