THREE ADDITIONAL CASES OF PARAGONIMIASIS INVOLVING PELVIC ORGANS

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Paragonimiasis involving the pelvic organs has never been reported in the literature except for the cases reported by Hsu et al in 1959 and 1962. Additional cases are presented in this report. Case 1: Paragonimiasis infested in the left adnexa and formed a tuboovarian abscess possibly relating to her subsequent repeated abortions. Case 2: Widespread pelvic paragonimiasis lesions with chronic inflammation could have possibly caused ectopic pregnancy. Case 3: Solitary parasite granuloma in the omentum was accidentally found in a long-standing sterile woman. Laparotomy proved the granuloma had nothing to do with her sterility which should have been caused by endometriosis, particularly with combination of intact tube and diseased ovary and vice versa. 6 cases of such rare association would indicate the importance of investigation in pelvic involvement of paragonimiasis.

Paragonimiasis involving female genital organs is very rare and has perhaps never been described in the literature. The first two cases were reported by Hsu *et al*[1] in 1959 and a third case by Hsu *et al*[2] in 1962. Three additional cases are presented in the present paper.

CASE 1

Mrs. SWOW, aged 34, gravida 3, para 1 was first seen on Jan. 9, 1965, complaining of sterility for 3 years since her first two miscarriages: one in 1961 and in 1962. Menstrual history revealed her menarche was at 17, and menses appeared regularly every 28–30 days for one week with moderate flow. Pelvic examination at that time showed a retroverted, normal sized uterus, negative adnexae and intact cervix. Tubal insufflation revealed that both tubes were patent at pressure of 80 mm Hg. On Aug. 6, 1966, she had a third spontaneous abortion of 3 months' gestation. Since then, she has suffered left sided lower abdominal pain. Pelvic examination on Aug. 18, 1966 revealed a retroverted normal sized uterus, a cystic, goose-egg sized tumor mass located at the left adnexal region. By culdocentesis, a few serosanguinous punctate was obtained. Laparotomy was performed on the same day. A tuboovarian abscess, arising from the left adnexa, was removed. A part of omentum which had been adhering to the abscess wall was resected. Pathological study (TPMC 66-2395) confirmed that it was a pyosalpinx and we found some ova of Paragonimus Westermanii in the cyst wall and omentum. Postoperative course was uneventful. She conceived very soon after discharge with the L. M. P. dated on Sep. 17, 1966, and eventually gave birth to a normal baby.

CASE 2

Mrs. HYY, aged 38, gravida 10, para 4, was admitted with chief complaint of irregular genital spotting and lower abdominal pain on Aug. 21, 1967. Past history revealed nothing particular except for 4 artificial and 2 spontaneous abortions. The last delivery was 7 years ago. Her menarche was at 17,

thereafter the cycle being regular every month, for 4-5 days with moderate flow. The L. M. P. began on June 14, 1967, but no menses appeared on the next expected period and irregular genital spottings had afflicted the patient since July 27. Lower abdominal pain accompained with tenesmus was complained of, one week prior to admission. Physically, the patient was a moderately developed and nourished woman in clear consciousness and fair general condition. B. P. was 128/82. The abdomen was soft and flat, with the lower part being slightly tender. The uterus was retroverted and enlarged. Both adnexae were impalpable. Culdocentesis was positive. Pregnosticon plano test was positive. Laparotomy was done on Ang. 22, 1967, with a tentative diagnosis of ectopic gestation. On operation, it was found to be a case of tubal pregnancy. Besides, several peanut sized nodules were found scattered over the peritoneum, posterior surface of the uterine body, posterior leaf of the broad ligament, and on the omentum. Left adnexectomy, as well as the removal of these nodules, was performed. Pathological study (TPMC 67-3244) revealed that these nodules were parasitic granuloma with many ova of Paragonimus Westermani in their centers.

CASE 3

Mrs. LHH, was a 31 year old nulliparous woman. She married her husband at 23. Her menstrual history revealed nothing particular. Her past history showed that she had suffered from paragonimiasis, and was treated with Emetin during her youth. She consulted us on April 21, 1968 because of her desire for children. Pelvic examination revealed a retroverted, normal-sized uterus, negative adnexae and eroded varginal portion. Hysterosalpingographic study showed an atonic uterine shadow with a filling defect on the left margin of it. The left tube was patent but the right tube was not visible. An amorphous opaque density was noted in the right lower part of the pelvis. Laparotomy, done on April 24, revealed a myomatous nodule of thumb—tip size on the anterior surface of body. The left ovary tightly adhered to the broad ligament, sacro-uterine ligament and rectum. A whitish yellow hard nodule ($1.8 \times 1.3 \times 1.3$ cm) was noted on the omentum. Both tubes were intact and patent. Wedge resection of the left ovary, removal of endometrial-tissue-like material from the sacro-uterine ligament, myomectomy and excision of the nodule were performed. Pathological examination (TPMC 68-1727) showed that the nodule was a parasitic granuloma caused by paragonimus ova. The myomatous nodule was a benign leiomyoma. Tissues from the sacro-uterine ligament consisted of fibromuscular tissue and contained a few aberrant endometrial glands. The ovary contains an old corpus luteum hematoma and endometriosis in places. She made a good recovery and soon conceived 3 months after discharge.

COMMENTS

As discussed by Hsu *et al*[1,2], paragonimiasis involving female genital organs is rare and interesting for a gynecologist in an endemic area such as Taiwan. The exact correlationship between the parasitic infestation and the gynecological diseases which brought the patients to us is still unknown and merits further investigation. In case 1, the patient gave no history of symptoms or signs suggestive of paragonimiasis. The intradermal reaction with V. B. S. antigen, performed after operation, was negative. Search for parasite ova in sputum was fruitless, too. An accurate preoperative diagnosis in such an occult case is quite impossible. Though the exact cause of the successive abortions in this patient is unknown, the parasitic infestation in the pelvic organs was, more or less, involved, as suggested by the fact that the removal of the

abscess resulted in normal pregnancy. However, the possibility of ascending infection during the third abortion, instead of parasitic infestation, as the cause of abscess formation can not be denied. In case 2, the intradermal reaction with V.B.S. antigen was positive, but the chest X ray film and sputum examination were negative. She gave no history suggestive of paragonimiasis in the past. The excised Fallopian tube was carefully searched for the presence of parasitic ova, but it was fruitless. The chronic inflammation caused by the severe infestation of abdominal cavity by Paragonimus Westermanii, probably, was the main factor in the establishment of ectopic gestation. In case 3, the patient had definite symptoms and signs of pulmonary paragonimiasis, and was treated successfully with Emetin. The intradermal reaction was still positive. The opaque shadow demonstrated in hysterosalpingogram was most probably caused by parasitic granuloma found in the omentum. The co-existence of parasitic infestation and sterility would seem to be a rare coincidence. The ovarian function seemed little affected by parasitic infestation, as well shown by the normal menstrual history and the presence of corpus luteum. The inadequate tubo-ovarian motility secondary to adhesion and fibrosis caused by pelvic endometriosis, as suggested by Kistner,[3] might be the etiology of her sterility. Such an assumption was well substantiated by the fact that she conceived soon after the surgery.

SUMMARY

Three additional cases of paragonimiasis involving the pelvic organs including the genital organs are presented. In the first patient, the parasitic ova were found in the wall of the tubo-ovarian abscess. It is very difficult to evaluate the exact role of the parasitic infestation in the successive spontaneous abortions in this case. The second patient suffered from extensive parasitic infestation in her pelvic cavity. The chronic inflammation caused by the parasites seemed to play an important role in the developing of tubal pregnancy. The diagnosis was made only after pathological study; in occult type, like these two patients, the diagnosis is quite impossible. The third patient had a definite past history of paragonimiasis. Only one parasitic granuloma was found in the omentum. The endometriosis, instead of parasitic infection, may be more important as the cause of her sterility, since the resection of endometriotic tissues in the left ovary, sacro-uterine ligament, broad ligament brought about the relief of her sterility. The correlationship between the paragonimiasis and some varieties of gynecological diseases, such as sterility or chronic pelvic inflammation, is very interesting. It merits further investigation.

REFERENCES

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(2) HSU, C.T., MA, Y.M., WANG, T.T., HSIA, C.J., OULI, C.K. & CHANGCHIEN, B.C.: J.F.M.A. 61: 503, 1962.
(3) KISTNER, R.W.: Lancet 79: 179, 1959.

骨盆臟器衛氏蛭蟲寄生例

(追加三例之報告)

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衛氏蛭蟲之寄生於骨盆臟器甚爲罕見，以一九五九年徐等人報告之二例爲最初以後徐等人又追加1例，本文報告三例，第一例係寄生於左側附件而形成膿腫。本膿腫於病人過去之流產似有關聯，第二例有廣汎的寄生蟲卵散布於腹腔，引起慢性炎症以致形成子宮外孕之可能性頗大，在第三例，祇有一個寄生蟲granuloma 在大網膜，病人之不孕症似與此無關，而係由骨盆內膜異位症所引起，臺灣之衛氏蛭蟲感染很多，本蟲與一些婦科疾病如不孕症或骨盆內炎症之關係甚爲有趣；值得吾人之進一步調查。