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RESEARCH ARTICLE

AN INCIDENTAL FINDING OF FILARIASIS IN OVARIAN BORDERLINE PAPILLARY SEROUS TUMOUR- A CASE REPORT.

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Abstract

Ovarian filariasis is a rare disease and displays diagnostic challenge. We report a case of 45 year old patient who had ovarian cyst and presented with complaint of pain abdomen. CT scan revealed right ovarian cystic lesion. The histological examination of oophorectomy specimen led to the diagnosis of serous borderline papillary tumour along with an incidental finding of filariasis in the cyst wall.

Introduction:-

Lymphatic filariasis is an endemic parasitic disease which occurs due to roundworms of the genera Wuchereria and Brugia. According to WHO, it accounts for second leading cause of permanent disability across the world. Apart from lymph nodes, it can be found at other unusual sites. Pelvic or ovarian sites remain rare.[1] However, few cases have been described in the literature. We report a case of 45 year old patient with ovarian filariasis and serous papillary borderline tumour of the same ovary.

Case History:

The patient was a 45 year old unmarried female without any particular medical background. She presented with complaint of abdominal pain since 10-12 years. CT scan revealed right sided ovarian cystic lesion measuring 17.3x11.6x9.3 cm with septations and multiple internal echoes. Patient underwent right salpingoophorectomy. The specimen was fixed in 10% formalin and sent for histopathological examination. Peritoneal fluid was also sent for cytological examination. Blood investigations were normal.

Macroscopically, resected right ovarian specimen weighed 1400 gm and measured 18x12x9 cm with regular smooth bosselated external surface and cystic consistency. Attached right fallopian tube measured 8 cm in length. Cut section of the ovary showed unilocular cyst and drained serous fluid. Internal cyst wall was smooth with few areas showing friable grey white papillary projections **(Figure 1).** No solid areas, hemorrhage or necrosis was seen. Grossly, right fallopian tube was normal.

Microscopically, a section of cyst wall showed the presence of adult worms of filaria **(Figure 2, 3).** Sections studied from papillary projections showed serous borderline papillary tumour **(Figure 4).** Fallopian tube was unremarkable. Peritoneal fluid was negative for malignant cells.

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Discussion:-

Lymphatic filariasis effect many people in tropical countries and causes severe disability. Apart from its usual location of lymph nodes, adult filarial worms are often detected in paratesticular tissues, epididymis and breast. Female genital tract is rarely involved and includes uterus, fallopian tube, mesosalpinx and vulva.[4] Men are more effected than women. The ovarian localization of filariasis is very rare and thus exact incidence is not known. Four of them are responsible for serious filarial infection – (1) *W. bancrofti*, (2) *Brugia malayi*, (3) *Onchocerca volvulus*, and (4) *Loa loa*. First two cause lymphatic filariasis and rest two cause nonlymphatic filariasis.[2] W.bancrofti is most common in tropical countries.[1]Human is the definitive host whereas mosquito is the intermediate host of filarial disease. In India, main vector is *Culex fatigans*.[2]

The diagnosis of ovarian filariasis is seldom made preoperatively because patient mostly presents with gynaecological problems rather than symptoms related to filarial infection.[2] Therefore, histological examination is necessary to diagnose ovarian filariasis.[1] In our case, the patient underwent right ovarian salpingoophorectomy and was diagnosed to have serous borderline papillary tumour apart from filarial infection. Lymphatic filariasis is usually treated by DEC with a dose of 6 mg/kg/day for 12 days. Surgery and medical therapy primarily helps to avoid recurrences.[2] The disease has a favourable prognosis.[1]

Sethi S et al reported 2 cases of filariasis, one in the ovary and other in the mesosalpinx. Both patients presented with complaints of gynaecological problems and not filariasis.[3] Goel P et al presented a case of young woman who posed a significant problem in the diagnosis of ovarian filariasis due to uncommon presentation.[5] Mondal SK also reported a case of filarial worm effecting right ovary in a 35 year old female patient.[2] Sane Y reported filarial worm in the wall of a cystic teratoma of the ovary.[4] Chakraborty S reported a case of tubo-ovarian filariasis with retroperitoneal extension.[6] Rani P et al reported a case of filarial worm residing in ovarian papillary serous adenocarcinoma.[7]

Figure 1:-Gross photograph of right ovarian cyst. Right lower inset shows cut section with papillary projections.

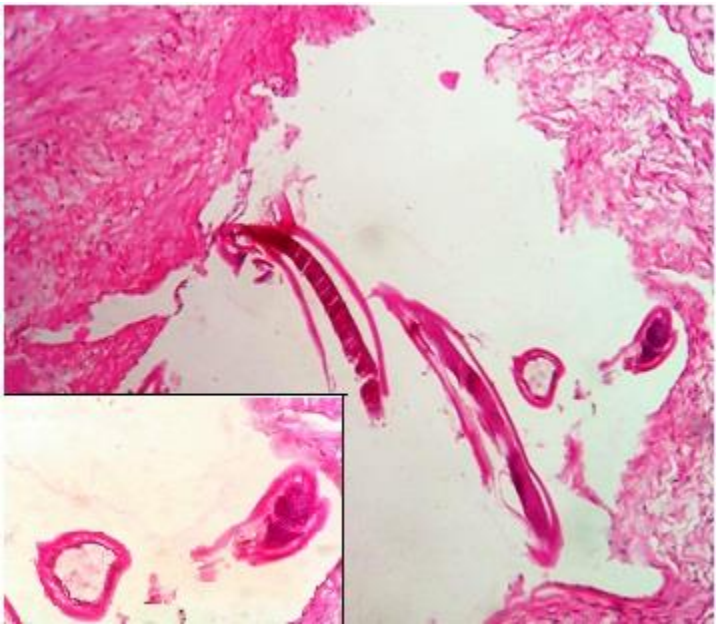

Figure 2:-Microphotograph showing filarial worms in the cyst wall (H&E, 10X). Inset shows transverse section of filarial worm (H&E, 40X).

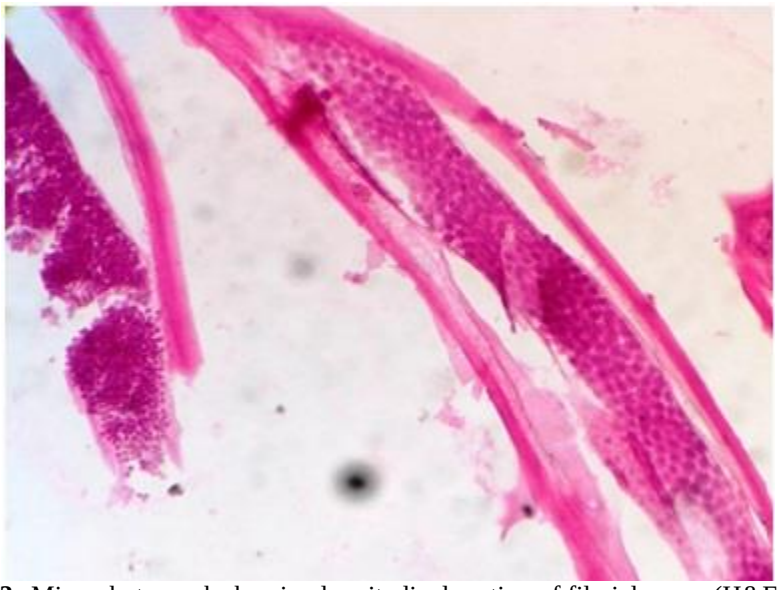

Figure 3:-Microphotograph showing longitudinal section of filarial worm (H&E, 40X).

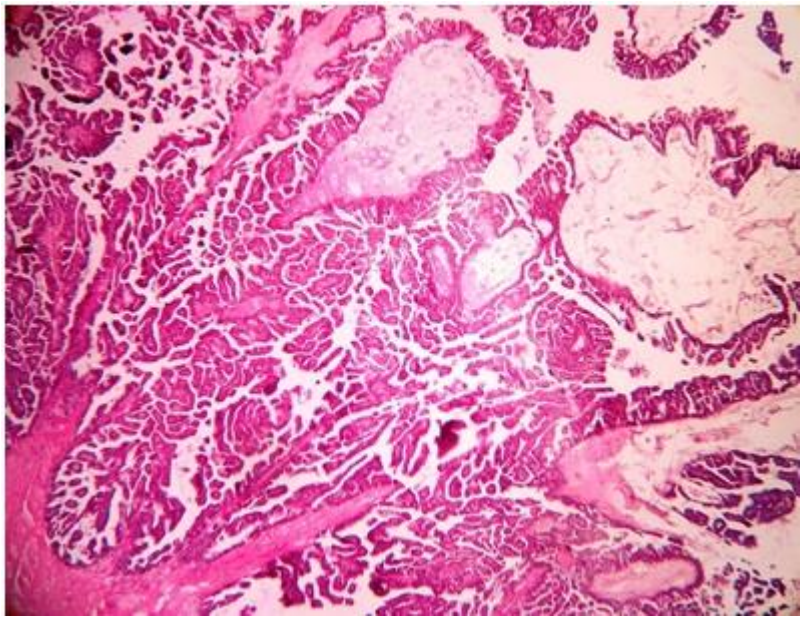

Figure 4:-Microphotograph showing borderline serous papillary tumour (H&E, 10X).

Conclusion:-

Ovarian filariasis is a rare disease, even in endemic areas. Only histopathological examination of the sampled tissue can help in the diagnosis of this disease. [1]

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