Giant cell arteritis of fallopian tube

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Summary: One case of giant cells arteritis involving tubaric arteris in a postmenopausal woman is described.

The patient was 59 years old and presented with asthenia, anemia, fever, weight loss, an abdominal palpable mass and elevated erythrocyte sedimentation rate. Exploratory laparotomy revealed a large ovarian cyst of 14 cm in diameter. Extensive giant cell arteritis, Horton's type, of the small-sizes arteris was found unexpectedly in the fallopian tube of the patient who had had a prior ovariectomy. Giant cell arteritis of the female genital tract is a rare finding in elderly women and may occur as an isolated finding or as part of generalised arteritis.

Key words:

INTRODUCTION

Giant cell arteritis is a disease of the elderly that has been demonstrated most commonly in the temporal arteries, although clinical involvement of other large to medium-size arteries is not uncommon ([1, 2]).

The disease is characterized histologically by thickening of the vessel wall with marked lumenal narrowing. An inflammatory infiltrate of lymphocytes, histiocytes, giant cells, eosinocytes and plasma cells is present, especially in intima and media.

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The internal lamina elastica is lost or fragmented. Giant cell arteritis of the female genital tract has rarely been reported, with only 17 cases involving the ovaries, fallopian tubes, or uterus recorded ([2, 3, 4, 5]).

In this report, we discuss the clinicopathologic findings in a patient with giant cell arteritis of fallopian tube.

CLINICAL CASE

A 68-years-old woman was admitted to the Department of Gynecology and Obstetrics of Padua University because of lower abdominal mass which was detected on physical examination.

Gynecologic history included menarche at age 12 and normal regular menses. She was gravida once, PARA 1001 and had an eventful vaginal delivery at age 25. She had undergone spontaneus menopause at age 50. Her past history revealed an episode of non specific thyroiditis 38 year old and pulmonary tubercolosis in 1930. She had been well until 3 months earlier, when she developed a temperature of 37.8° C, occasional pain in the occipital area associated with chill, increasing fatigue, dyspnea, anorexia and weight loss. In th esame period she noticed a

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painfuls nodul measuring 1 cm in diameter in the right temporal area which spontaneusly disapeared. In July she was admitted to another hospital because of elevated blood pressure (180/120 mmHg); the patient was discharged with regimen of anti-hypertensive medication. In August the same year she was readmitted because increasing of fatigue, fever and weight loss.

Radiologic examination of the gastro-intestinal tract negative, she continued to feel tired and generalized weakness developed.

The findings of the general physical exam were unremarkable except for a temperature of 37.6° C and abdominal mass. The temporal arteries were not thickened or tender.

The hematocrit was 26.9, the white cells count 8.600, and the erythrocyte sedimentation rate (ESR) 89-99 mm/per hr. The hemoglobin was 10, fibrinogen, alfa globulin and c-reactive protein were elevated. The skin test for tuberculosis was positive but all the other examinations excluded the disease.

Collagen diseases and malignances were excluded too. An ultrasound examination of the pelvis disclosed a 5×4 cm cystic right ovarian mass, the presence of which was confirmed by a computed tomographic scan of the abdomen. The patient was admitted to our institute for laparotomy.

Findings revealed a cystic right ovarian mass while uterus and left adnexa were normal. A monolateral salpingo-oophorectomy was performed. The post operative period was uneventful.

PATHOLOGICAL FINDINGS

Gross examination of the specimen revealed a unilocular right ovarian cyst measuring $6 \times 5 \times 4$ cm filled with straw-colored fluid. The cyst wall was smooth without papillation. The ovary measured $2 \times 2.5 \times 1.8$ and had a nodular external surface, fallopian tube appeared unremarkable. Microscopic examination revealed a cyst lined by flattened to cuboidal epitelium and classified as a simplex cyst (Fig. 1). Many small arteries of the fallopian tube showed a granulomatosus arteritis with a transmural inflammatory infiltrate of the media and composed of lymphocytes, plasma cells, histiocytes, and multinucleated giant cells (Figs. 2 and 3). Intimal thickening by fibrous tissue was present, and the lumens of some vessels were obliterated by the fibrosis or inflammatory infiltrate. Elastic tissue stain revealed that the internal elastic lamina was fragmented and that numerous epithelioid histiocytes and giant cells lay adjacent to the fragmented elastic fibres. There was no infiltration of eosinophils or polymorphonuclear leukocytes, and no fibrinoid necrosis.

DISCUSSION

Giant cell (or temporal) arteritis is a disease of the elderly that generally involves the carotid arteries or their branches, especially the temporal arteries. It has been shown to have a more generalized distribution, however, with a clinical evidence of involvement of large extracranial arteries in 15-20% of cases ([6]) and disseminated small vessel giant cells arteritis in some cases ([1]). Rare cases of giant cells arteritis involving medium-sizes arteries of the breast have been described ([7]). Localized involvement of small, medium-size arteries by necrotizing arteritis histologically similar to polyarteris nodosa has also been reported occasionally in the kidney ([8]), mesentery of the intestine ([9]) and in the gallbladder ([7]) in patients with temporal giant cell arteritis.

Seventeen cases of giant cell arteritis involving the female genital tract have been reported ([2, 3, 4, 5, 9]). Each patient had clinical findings similar to the patient described in this report.

All of them were postmenopausal, ranging in age from 59 to 82 years. Ten of the patients presented with shoulder pain or fatigue and weakness and were found on physical or radiological examination to have a pelvic mass ([2, 3, 5, 8]). Twelve presented fever and weight loss ([4, 9]).

Laboratory examination in the cases reported in literature revealed anemia and elevated ESR rate. Our patients were also anemic and the ESR was elevated. Thir-

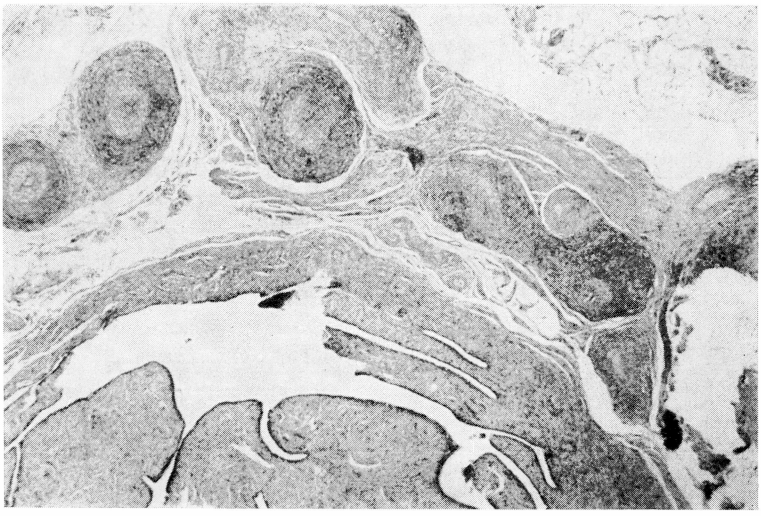

Fig. 1. — Peritubaric arteries evidence a maxive transmural inflammatory infiltrate (Em. Eos. 8 ×).

teen of the patients whose cases were previously reported had symptoms suggestive of polynealgia rheumatica ([1, 4, 9]); one had symptoms of temporal arteritis ([5]) and one patient had temporal artery biopsy postoperatively that had shown temporal arteritis ([10]).

Removal of the ovaries and fallopian tube with or without the uterus was performed because of pathologic lesion unrelated to the giant cell arteritis in all 17 cases. Histologic examination in all the cases unexpectedly showed typical giant cell arteritis involving predominantly the

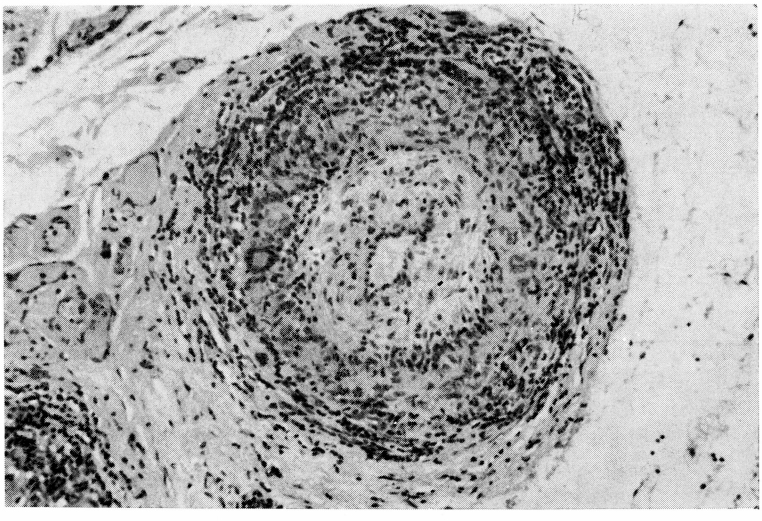

Fig. 2. — Artery with intimal fibrosis and a transmural infiltrate of lymphocytes (histiocytes) and giant cells (Em. Eos. 40 ×).

media of the small to medium size arteries.

It appears that the giant cell arteritis of the female genital tract may be either an isolated finding or may be associated with giant cells arteritis in other sites.

Ten patients with symptoms of polymyalgia rheumatica ([3, 9]), two with signs of temporal arteritis ([9]) were treated with prednisone and had marked symptomatic improvement. One had systemic symptoms, anemia, elevated ESR and had a thoracic aortic aneurysm detected 5 years postoperatively. Although a causal relationship to previously diagnosed giant cell arteritis cannot be proven, the frequency of aortic involvement with aneurysm formation in this disease indicates the probability of relationship. These findings suggest that symptomatic patients in whom giant cell arteritis is diagnosed on examination of the female genital organ should be treated, both to allay the symptoms and to prevent further complications.

Alternatively, four patients described in the literature all of whom were asymptomatic, received no therapy and remained well ([2, 9]). It may be unnecessary, therefore, to treat asymptomatic women in whom giant cell arteritis of the female genital tract is an incidental finding.

The histological differential diagnosis of giant cell arteritis includes other forms of vasculitis. Vascular lesions necrotizing arteritis type have been reported in the female genital tract as a part of systemic disease ([6]). The histological appearence of this disease differs from that of giant cell arteritis, in that the inflammatory infiltrate is more acute, eosinophils are present, and fibrinoid necrosis is more extensive.

Wegner's granulomatosis is a form of granulomatosis arteritis which is histologically similar to giant cell arteritis; however, the extensive necrosis of vessel walls and areas of extravascular necrosis that are characteristic of Wegener's granulomatosis are not seen in giant cell arteritis.

In summary, giant cell arteritis is an unusual finding in the small-medium-size arteries of the female genital tract of elderly women and may represent either an incidental localized finding or may be a manifestation of giant cell arteritis involving multiple sites. Female patients in whom this lesion is found unexpectedly in a specimen from the genital tract should be investigated thoroughly for involvement of other sites, and treated appropriately if the finding suggest generalized disease.

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