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Case Report Open Access

Clinical Suspicion of Abdominal Paragonimiasis was Confirmed after Emergency Laparotomy Together with Unfolding of Coexisting Endometriosis

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Abstract

The present study reports a human case of paragonimiasis which coexisted with endometriosis, leiomyoma and salpingitis in Nigeria. A 28-year-old woman from the Igbo ethnic group presented with acute colicky abdominal symptoms at a hinterland Missionary Hospital. Therefore, emergency laparotomy was carried out. This revealed uterine fibroids and dense lesions between the pelvic organs. There were nodules attached to the mesenteric border of the ileum. Biopsy from several sites was performed. The individually labeled samples were received at a Reference Pathology Laboratory where paragonimiasis, endometriosis, leiomyomata and salpingitis were diagnosed. The patient's immediate post-operative recovery status was uneventful until she was lost to follow up.

Keywords: Emergency laparatomy; Paragonimus uterobilateralis ova; Paragonimiasis; Endometriosis; Mesenteric nodules; Paraovarian tissues; Nigeria

Introduction

Endometriosis is readily recognized when functional endometrial tissue is present outside the uterine cavity. In the opinion of the group from the Johns Hopkins Hospital, Baltimore, Maryland, USA, it is "the most fascinating of the disease processes of the female reproductive system" [1]. Incidentally, there is a tendency for single or few interesting presentations to be recorded. Thus, the lesions in the rectum [2] vermiform appendix, [3,4] and umbilicus [5-7] are topical. Also, there are "query cases" for which CD10 is a very useful marker [8] In terms of treatment, the data indicate that STATS inhibitors may be promising candidates [9].

Turning to paragonimiasis, it has been noted that it is part of the global burden of human food-borne diseases [10] Research is focused on particular areas such as a forest zone of Cameroon [11] as well as the river basins around Okigwe [12] and Calabar [13] in Nigeria. Of interest also is the reportage of the individual case, including the serendipitous discovery of the living adult worms of Paragonimus uterobilateralis, [14] the successful treatment with praziquantel of a 18-year-old man with a 1-year history of hemoptysis [15] and involvement of the abdominal wall in a 9-year-old Korean [16]. In this context, collaborative research between workers in the Ivory Coast and France [17] added the heart-warming suggestion that, owing to "the current low prevalence of human paragonimiasis recorded in Africa and the high cost of wide-scale screenings for this disease, training of technicians in anti-tuberculosis centers would be the most realistic attitude to detect mycobacteria and/or Paragonimus eggs during the same sputum examination." Accordingly, the present paper draws attention to the patient who suffered both endometriosis and the worm disease due to Paragonimus uterobilateralis.

Case Report

Clinical history

A 28-year-old Nigerian woman of the Igbo Ethnic Group attended the hinterland Mater Hospital at Afikpo. She complained of severe colicky abdominal pains. On physical examination, she appeared healthy apart from lower abdominal tenderness. At emergency laparotomy, there were dense adhesions between the pelvic organs. Nodules preponderated in the mesenteric border of the ileum. The uterus was distorted. Several materials were obtained and submitted for histopathologic examination at a Reference Pathology Laboratory.

Pathology

Three roundish masses were received. The largest was 0.5 cm across. There was also a tangled mass measuring 5.5 x 3.5 x 2.0 cm. This showed, on section, the fallopian tube as well as a whitish solid area reminiscent of the left ovary. On microscopy of the roundish masses, one was an old abscess with cholesterol clefts. Another showed young granulation tissues as well as necrotic debris and a few paragonimus ova. The third was full of these paragonimus ova. The right tube manifested nonspecific chronic inflammation. The left paraovarian tissues exhibited endometriosis confirmed by the presence of typical endometrial glands with their associated classical stroma. The uterus showed evidence of leiomyoma. Altogether, the diagnoses were paragonimiasis, endometriosis, leiomyoma, and nonspecific chronic inflammation. Her immediate post-operation recovery status was uneventful. However, she was lost to follow up.

Discussion

Endometriosis, although a well known entity, has curiously been reported to coexist with only a few extraordinary lesions. Such oddities include association with early pregnancy on the diaphragm, [18]

urinary bladder perforated during uterine operation [19] and ovarian schistosomiasis [20].

Accordingly, the present Nigerian case adds to the world literature concerning the two interesting diseases of endometriosis and paragonimiasis. In particular, the disease was suspected and queried clinically as being due to paragonimiasis. Fortunately, the microscopic appearances were typical of the lesional paragonimus ova which were illustrated in the original paper that followed its discovery [14] (Figure 1). In this context, it is enough to discover that both the worm diseases and non-specific inflammation were found to coexist [21]. We are persuaded that it would have necessitated serial sections to show one focus or more in which both lesions featured close together! Incidentally, this case illustrates the advantage of workers in the hinterland sending biopsy specimens to a Central Pathology Laboratory in a developing country. Incidentally, even in the advanced United Kingdom, some have questioned, as recently as 2002, "whether a satisfactory histopathology service can ever be delivered to a hospital remote from the providing pathologists and their laboratory" [22]. In fact, the importance of cooperation between even a rustic area and a reference laboratory was documented recently in the Nigerian environment [23].

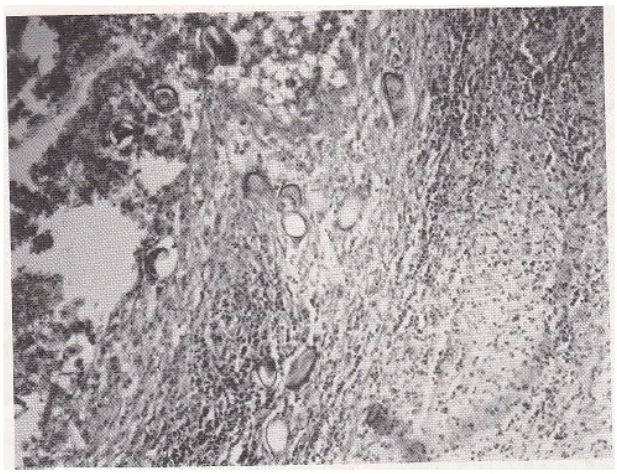

Figure 1: Section of wall and lumen of Paragonimus cyst, showing cyst wall and cellular debris in the cyst lumen. Parasite ova are numerous within the cyst wall and lumen.

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