CASE OF CHORIONAMNIONITIS DUE TO CANDIDA IN A I.U.D. USER

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SUMMARY

The Authors describe a case of candida mycotic chorionamnionitis in an IUDM user.

Usual ufngi, like candida, can also be responsible for pelvic infections in women using an intrauterine device.

Mycotic superinfection on pelvic organs inflammation, is a clinical event widely described in the literature ([7, 9]).

Recently reported cases of mycotic pelvic infections in users of contraceptive intrauterine devices have been increasing ([1, 5, 10]).

This study reports a case of candida chorionamnionitis at the third month of pregnancy, in a IUDM user, resulting in spontaneous abortion.

CLINICAL CASE

S. G., age 36, Para: 3003; no important pathology is noticed in the anamnesis. Since January 1979, this woman has used a contraceptive IUDM (Gravigard), well tolerated until the end of March 1980, when she begins to have menstrual delay, sharp pains in the low abdomen, vaginal itch and leukorrhea. Her doctor removes the spiral and she suffers hematic losses for five days. After twenty days of fair well-being, metrorrhagic symptomatology reappears with continuous 38° fever, general ill-feeling and intermittent hypogastrium pains. Therefore, on 15 May 1980, the patient is hospitalized in our department with the diagnosis of septic abortion at the third month of pregnancy. On the same day, in fact, the spontaneous expulsion of conception product occurs and the patient undergoes uterine curettage.

HISTOLOGIC EXAMINATION

The histologic examination of the material obtained through the uterine curettage shows ovular deciduous tissue with several scarcely branched villi and evident sincythiotrophoblast. The villi stroma appears loose with few fibroplastic cells and some vessels filled with nucleated erythrocyti, while between the villi, there are fibrin deposits.

The chorion shows widespread infiltrations of neutrophil granulocytes and histioids cells arranged in clusters, having sometimes perivascular seat (fig. 1).

In these areas there are eosinophil, PAS highly positive and irregularly arranged mycelial hyphae (fig. 2).

Hyphae appear fragmented with rare and irregular lateral ramifications and are

Clin. Exp. Obst. Gyn. - ISSN: 0390 - 6663
VIII, n. 1, 1981

associated with oval spores, having a diameter of about 3-4 cm. The diagnosis was mycotic chorionamnionitis due to candida.

DISCUSSION

Mycetes are common skin and mucosas (oral, vaginal, intestinal) saprophytes. They can become pathogenous during debilitating diseases, serious immunodepression states, antibiotic therapies or when mechanical manoeuvres are performed (arterial and venous catheterism, parenteral feeding, etc.). Candida albicans, found in more than 10 % of vaginal smears, especially in diabetic patients, during pregnancy or estroprogestinic therapy, is particularly interesting. Other fungi (cryptococci, endomycetes, etc.) can be found as saprophytes, in microbic vaginal flora; other actynomicetes have never been reported to appear in vaginal smears on healthy women ([3]).

The increasingly frequent association of endometrial mycotic infections in IUDM users appears to be due to the irritant chronic stimulus on the endometrium, caused by the intrauterine device ([4]). Both during its insertion and through the thread emerging from the cervix, IUDM appears to be a favourable factor for mycotic spreading into the endometrial cavity ([10]).

It seems, however, that mycetes, owing to their characteristics, can produce no endometrial infection without a pre-existing phlogistic state or endometrium erosion, as they appear unable to overcome the endometrial epithelium, if this is undamaged ([2, 8]).

Prolonged use and/or the use of traumatic IUDM may produce erosions and perforations of the endometrial mucosa, thus favouring the mycotic colonization and infection.

This hypothesis had already been suggested in 1957 by Stevenson, in the comment to two cases of pelvic actinomycosis in users of contraceptive IU pessaries ([11]).

Furthermore, IUDs appear to cause microhaemorrhages and accumulation of tissue debris that favour mycotic colonization ([1]).

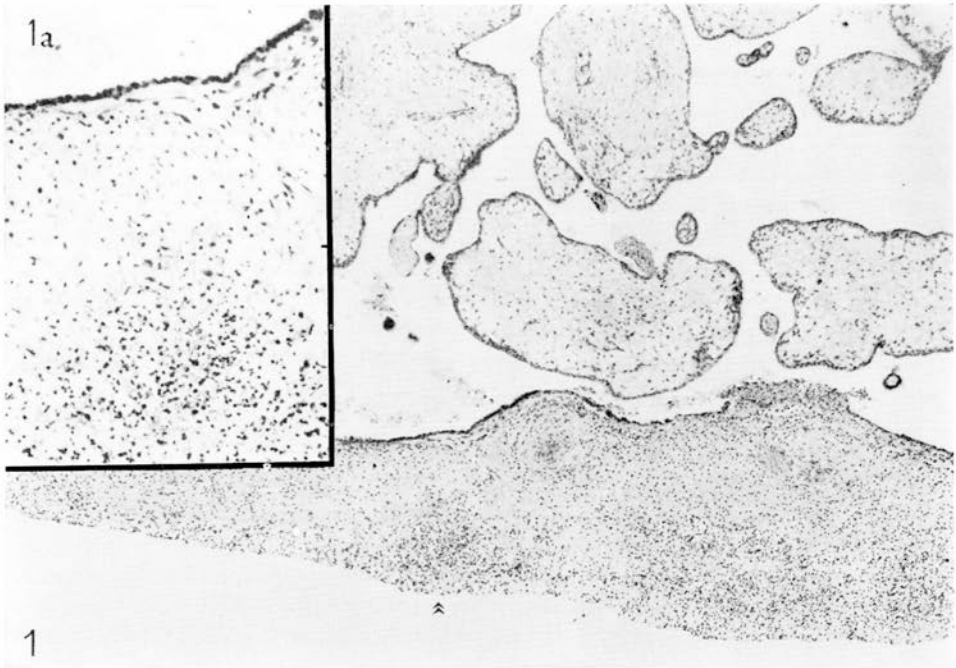
In 1974 Henderson described the first case of mycotic pelvic infection associated with IUDM, in the whole of american literature ([6]).

Later on, similar cases were reported ([4, 10]) and in 1979 the first lethal case of actinomycetes pelvic infection in a IUDM user was documented ([5]).

As the percentage of pelvic inflammation in women using IUDM is 10 % and increases up to 25 % in the group with positive vaginal smear for actinomycetes, it is possible to acknowledge a close pathogenic connection ([1]).

In the case reported, the histologic examination of the product of the uterine curettage showed a serious inflammation of the chorion (fig. 1) with fragmented mycelial pseudohyphae, eosinophilis and PAS positive, irregularly disposed, together with several budding spores considered as candida-type elements (fig. 2). This dimorphic candida growth with pseudohyphae and spores can be observed both in cultures and in infected tissues. Actinomycetes, instead, grow in round-shaped hematossilinophilic colonies having a filamentous radial structure in the centre and terminal clubs, while aspergilli have parallel regularly branched hyphae. As we had no cultural examination, we were unable to define candida species involved more accurately, although it is likely to be candida albicans.

The data reported in the literature prove that IUDM favours pelvic infections due to actinomycetes, unusual in the genital tract. But it is even more likely that the presence of a contraceptive intrauterine device favours the spreading and colonization, in the endometrial cavity, of mycetes, usual saprophytes like candida, with serious consequences like in the case reported.



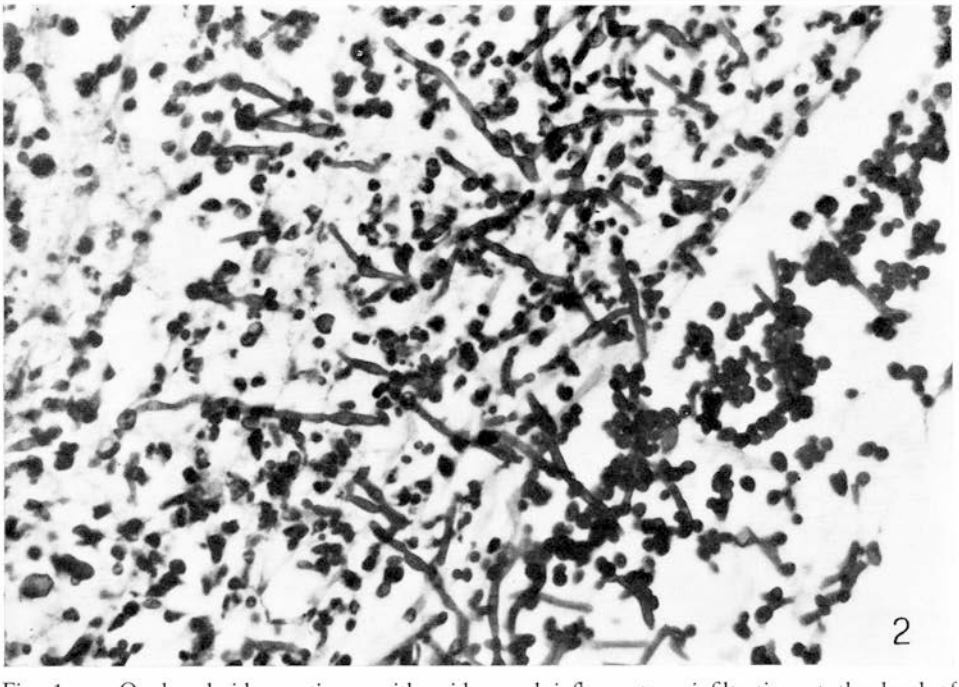


Fig. 1. — Ovular deciduous tissue with widespread inflammatory infiltration at the level of corium. An artery shows wall thickening and lumen obliteration. E. E. o.m. × 50. Fig. 1*a*. — This more enlarged picture shows neutrophilic granulocytes and mycelial hyphae. E. E. o. m. × 120. Fig. 2. — Hyphae and budding spores are intensely PAS positive (particular of fig. 1*a*). PAS o.m. × 480.

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