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Primary amenorrhea revealing Genital Tuberculosis: A case report

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ABSTRACT: Genital tuberculosis of women is part of extra pulmonary forms of tuberculosis. It is an uncommon disease in developed countries, but remains endemic in developing countries. The causative agent is, in most cases, Mycobacterium tuberculosis. Genital tuberculosis is a cause of infertility. The definitive diagnosis is made by biology or histology. Because this affection is paucibacillary, these tests may be falsely negative; In fact, diagnosis can then be focused on radiological, endoscopic and nosological arguments.

KEYWORDS: primary amenorrhea, extrapulmonary tuberculosis, synechia.

INTRODUCTION

Tuberculosis is a fairly common infection in Morocco where it occurs by an endemic mode. If the lung and lymph node locations are classic, genital location remains uncommon: 2.5% [1,2]. The authors report a case of genital tuberculosis revealed by primary amenorrhea in a 17 years old teenage girl. Through this observation, they discuss the epidemiological, clinical, paraclinical, therapeutic and prognostic aspects of this rare location of tuberculosis.

CASE REPORT

Our case is about a 17 years old teenage girl, Moroccan, only daughter in a family of three kids. Her mother was followed for pulmonary tuberculosis since four months and received a treatment according to the national program of antituberculosis chemotherapy. The patient consulted for isolated primary amenorrhea. The age of puberty of her parents was normal and there was no similar cases or genetic disease in the family. She was vaccinated according to the national immunization program. She comes from a normal pregnancy and the delivery was natural with normal weight. Physical examination found a patient with a female morphotype, weighing 45 kg for a height of 1 meter 55 cm. The stage of pubertal maturation corresponded to Tanner stage 4. There were no signs of hyperandrogenism. The patient was a virgin and the rectal examination allowed to detect the uterus through the rectovaginal septum. The hymen appeared intact. The examination with speculum virgin allowed to verify the existence of the vagina and cervix, eliminating vaginal aplasia or vaginal septum. The rest of the clinical examination was normal. Transabdominal pelvic ultrasound showed a normal size uterus with atrophic endometrium, both ovaries were without abnormalities. Hormonal balance including a dosage of Follicle Stimulating Hormone (FSH), luteinizing hormone (LH), Thyroid Stimulating Hormone (TSH), oestradiol, prolactin and β-Hcg was normal. The diagnosis of genital tuberculosis was strongly suspected. The tuberculin skin test was positive, greater than 20 mm. Chest-X-Rays and urinary tests looking for pulmonary and urinary location of tuberculosis were normal. Biological check-up found an accelerated sedimentation rate, renal function and blood count were normal (leukocytes 5300/mm3). After informing the patient and her parents, an exploration of the uterus by hysteroscopy objectified an insurmountable synechia. A biopsy was performed showing a white coating evoking firstly a caseum. Histological study confirmed the diagnosis of genital tuberculosis by finding an epithelioid granuloma with giant cells without caseous necrosis. Culture for mycobacteria showed a Mycobacterium Tuberculosis. The patient received anti bacillary treatment : 2RHZE/7RH; The first two months: Rifampicin, Isoniazid, Pyrazinamide and Ethambutol relayed by Isoniazid and Rifampicin for 7 months with good clinical and

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biological tolerance. The evolution was marked by weight gain and menarche after three months of starting treatment. She was informed about the poor prognosis of fertility and the usually irreversible uterine synechia.

DISCUSSION

The frequency of genital tuberculosis is probably underestimated because it's endemic in developing countries [3]. In Morocco, despite a mandatory prevention by BCG and a remarkably effective tuberculosis chemotherapy, genital tuberculosis remains a common and serious disease. Thus, it's the fourth extra-pulmonary location of tuberculosis after lymph node, digestive and osteo-articular location [4]. In industrialized countries, it is expected a recrudescence of cases of genital tuberculosis, secondary to the increased incidence of HIV status [5]. In the United States, on 66 336 cases of femal tuberculosis registered between 1993 and 2003, 1,332 (2%) were genital [6]. In developing countries, this disease typically affects young women in 72% of cases; In developed countries, genital tuberculosis is the prerogative of postmenopausal women with 62% [7]. Our patient is a Morrocan teenage girl of 17 years old whose mother was followed for pulmonary tuberculosis. Clinical examination is usually normal. Biological check-up can show an elevated sedimentation rates, lymphocytosis, modification of gamma globulin. Imaging studies are non-specific. [8] Most authors give an important place to hysterosalpingography. It can show calcified pelvic lymphadenopathy, uterine synechia, producing a typical pocket aspect, or if the uterus is totally symphysed, an opacification of the endocervix or only isthmus. We can also see tubal stenosis giving a rigid appearance, abscess images or hydrosalpinx non-characteristic. The diagnosis is made by finding Mycobacterium tuberculosis on the direct microscopic examination, or after culturing pathological samples. Hysteroscopy usually showed an impassable uterine synechia. Endometrial biospsy make the diagnosis by showing an epithelioid granuloma with giant cells without caseous necrosis. Several treatments are available. In Morocco, with the new national program against tuberculosis, we adopt the standardized protocol 2RHZE/7RH (rifampin [R], isoniaside [H], pyrazinamide [Z], ethambutol [E]) [9]. The first two months: Rifampicin, Isoniazid, Pyrazinamide and Ethambutol relayed by Isoniazid and Rifampicin for 7 month. Surgical indications are reserved initially for the treatment of complications or secondarily in case of resistance or relapse under medical treatment [3]. The place of corticosteroids is discussed during a pelvic disease [3, 4]. The prognosis of genital tuberculosis is bad, the synechia is usually irreversible. Infertility is observed in 44% of cases [10]. It is responsible of 5 to 10% of infertility (definitely sometimes) and it's complicated in 15-30% of cases by ectopic pregnancy [1]. Our patient and her parents were informed of the prognosis.

CONCLUSION

Genital tuberculosis remains a fairly common condition in our Moroccan context of endemic tuberculosis. The endometrial biopsy make the diagnosis. It is a diagnosis that we have to evoke in front of primary amenorrhea in a girl with normal sexual characteristics, without signs of hyperandrogenism and after eliminating utero-vaginal abnormalities. The prognosis is unfortunate, the synechia is usually irreversible.

CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest related to this article.

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