CEOG Clinical and Experimental Obstetrics & Gynecology

Late diagnosis of positive HIV serology in pregnancy incidentally discovered by the widespread appearance of Kaposi's sarcoma

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Summary

The authors report a case of Kaposi's sarcoma (KS) found in a pregnant woman. On discovery, the condition had spread throughout her body as is characteristic in some cases of individuals with HIV-positive serology. She was unaware of her HIV positive status. Her HIV infection had been diagnosed at the same time as KS at her last prenatal consultation. The newborn was delivered by an uncomplicated cesarean section. Appropriate treatment and multidisciplinary management after childbirth resulted in complete remission.

Key words: Koposi's sarcoma; Pregnancy; HIV.

Introduction

Initially described by the Viennese dermatologist Moritz Kaposi, Kaposi's sarcoma (KS) is a tumorous disease, multifocal in nature, and characterized by excessive proliferation of endothelial and fibroblast cells [1-4]. KS can be primarily categorized into four types: the *epidemic* of AIDS-related type, described in young homosexual men [5, 6]; the immunocompromised, and the classic or sporadic variant, and the *endemic* form, called African KS especially observed in Equatorial Africa [1, 7]; This latter form causes a chronic infection and death typically occurs within ten to 15 years of initial infection [8]. It is characterized by skin lesions, mainly localized in the lower extremities. They can be more aggressive with mucocutaneous and visceral spread requiring systemic treatment [9]. Kaposi disease (KD) in pregnancy is often observed in the immunocompromised, and is uncommon because of its sensitivity to chorionic gonadotropin hormones (CGH) [10].

The authors describe a case, rarely depicted in the literature, of a more extensive presentation of KD, widespread throughout the body of an HIV-1-positive pregnant woman.

Case Report

The patient was 30-years-old and carrying a poorly monitored pregnancy estimated at eight months gestation. She was seen for a generalized skin rash associated with frequent episodes of diarrhea. Physical examination revealed a well appearing woman with widespread skin lesions characterized as macula in nature (Figure 1) and accompanied by prurigo. The obstetrical examination and ultrasound were within normal limits. Other findings included a positive serology for HIV-1, a viral load of 500 cells / ml, CD4 count 100/mm3, and moderate anemia of nine g/dl. The histological analyses of her skin lesions were in favor of KS with foci of spindle cells, evidence of neovascularisation, and an inflammatory infiltrate consisting of predominantly of $CD8^+$ cells. A planned cesarean delivery resulted in the birth of an apparently well-appearing newborn (Apgar score 8 and 10), weighing 3,100 grams. A postoperative course without acute incidents enabled her transfer to a dermatological center on the 5th postoperative day for better management of her skin condition. Cryotherapy and monochemotherapy with vincristine was performed and complete remission (CR) was achieved after three months.

Discussion

KD is relatively uncommon, more often seen in immunocompromised men than women. The association with HIV was first described in homosexual men (> 30%) [10]. Very few publications describe KD in pregnant women. This case is the first reported in decades in this country. The risk of developing KD is higher in HIV-infected persons [11] and usually occurs in young subjects (sex ratio: 8/1). Specifically, there is a 20,000-fold increase in the risk of developing KS in people with AIDS compared to the general population, and a 300-fold increase in the same risk in the HIV-immunocompromised versus persons immunocompromised from other causes. Consequently, 15% of patients with AIDS develop KS.

The incidence of HIV infection remains a major concern in poor countries because it affects more the female

Revised manuscript accepted for publication June 24, 2013

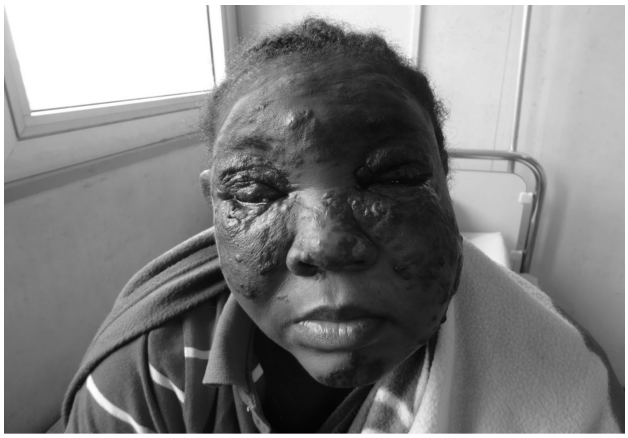

Figure 1. — Facial lesions.

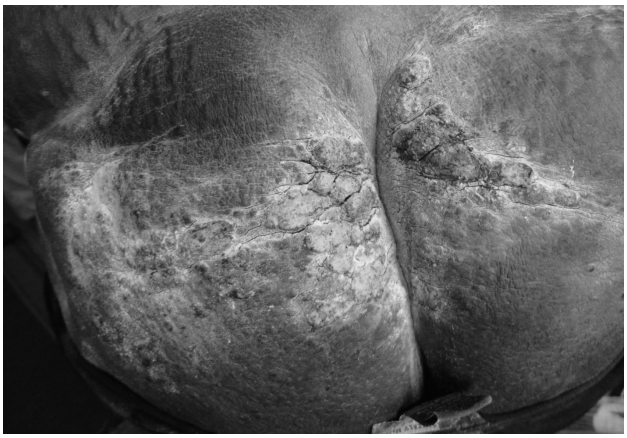

Figure 2. — Buttocks lesions.

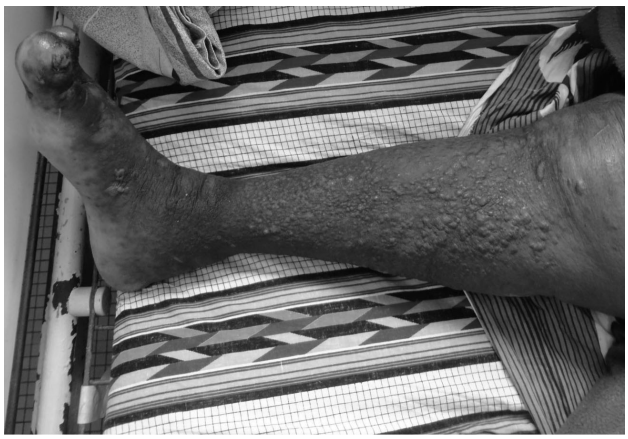

Figure 3. — Right leg.

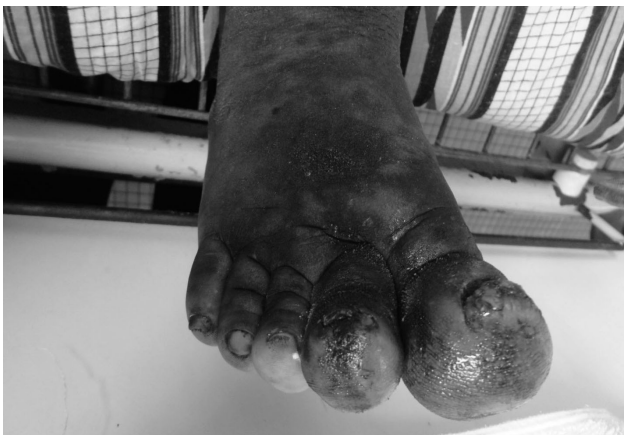

Figure 4. — Right foot.

population. The vulnerability of women is linked to their low socio-economic conditions, cultural practices, and high-risk behaviors, such as polygamy, and poor hygiene, respectively.

KD is an AIDS-related opportunistic infection with pregnancy further compounding the disease, leading to a more advanced state immunosuppression, which may explain widespread skin lesions (Figures 1 to 4). The very extensive nature seen in this case is more due to the immunosuppressed state of the person than the aggressiveness of the sarcoma itself. KD was diagnosed by histological analysis of the skin lesions (macula). Mucosal damage is infrequent [11]. Late diagnosis of HIV infection is related to the fact that the patient had not had any medical consultation and had as recourse only traditional treatments. She declined HIV screening in the first month of pregnancy. Refusal is often motivated by fear of stigmatization, and rejection by the spouse and family.

Late diagnosis of HIV infection, constantly found in underdeveloped countries, is related to illiteracy, poverty, lack of information, and unavailability of screening and diagnosis (viral load, CD4) or refusal. Patients are often diagnosed as a result of an AIDS-defining illness such as KS. KD is currently considered an "opportunistic neoplasia" rather than a true cancer. Early excision of a lesion does not prevent the emergence at other locations. The prognosis is correlated with immune status and not the number of lesions [11].

In this case, support was specific and multi-disciplinary. Due to the absence of initial antiretroviral treatment and a high viral load, a planned cesarean section was performed to decrease the maternal to neonatal risk of HIV transmission. The newborn was in good health (Apgar score 8 and 10).

ARV treatment was started immediately after birth in both mother and child, in parallel with that of KD. In the present country, there is no radiation therapy. So the authors prescribed, as Monelle Sone *et al.* [8], monochemotherapy with DTIC because of better tolerance, relatively low cost, and availability. Monochemotherapy with vincristine, velbe, VP16 or DTIC was used by many authors [8-11].

CR with complete disappearance of skin lesions was observed four months later. Olweny had observed nearly 90% of CR with combined-chemotherapy based on vincristine, actinomycin Dm and DTIC [12]. Mouelle Sone *et al.* [8] used combined-chemotherapy in critical cases. Immunotherapy with interferon does not appear to play a role in the therapeutic protocols [8]. CGH treatment is still experimental but has already been discussed [13,14].

Maternal prognosis of KD is relatively good especially with a multi-disciplinary team management approach. During pregnancy, there was no fetal risk of contamination by KD, but the fetus is very exposed to HIV due to premature birth or inadequacy of ARV treatment, and high viral load (> 400 copies / ml). In the present case, the infant was sent in a neonatology department where the classical assessment was normal.

KD in pregnancy is very infrequent. In case of late diagnosis of HIV infection, a cesarean delivery improved fetal prognosis. Maternal prognosis is generally better when treated early and appropriately.

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