

CLINICAL CASE OF SAROKMA KAPOSI IN A PATIENT WITH EXPRESSED IMMUNOSUPPRESSION

Bogachyk N.A., Kuzik F.V., Goncharuk L.M., Pidubna A.A., Andrushchak A.V., Balanyuk I.V.,
Andrushchak M.O., Kryvetska S.S.

Bukovinian State Medical University, Chemivtsi, Ukraine

margaritaassistant@gmail.com

Abstract

Our country remains the leading place in Europe in the scale of spreading of HIV. In the first ten months of 2020, according to the Center for Public Health of the Ministry of Health of Ukraine, 13,207 new cases of HIV infection were registered in Ukraine (including 62 children less than 14 years old). A total of 346,454 new cases of HIV infection have been registered in Ukraine since 1987, and 50,691 people have died of AIDS in Ukraine. However, official statistics differ significantly from reality. Thus, according to the latest WHO estimates, the number of people living with HIV in Ukraine is much higher than official statistics and are about 360 thousand people aged 15 and older. The difference between the indicators shows that 28% of HIV-positive people in Ukraine do not know about their HIV-positive status. The world is trying to stop the HIV epidemic. At the regular session of the UN General Assembly, the participating countries agreed to do everything possible to prevent the spread of the disease by 2030, and people living with HIV not to be discriminated against.

Key words: HIV-infection, opportunistic diseases, Kaposi's sarcoma, streptodermia

Introduction

Kaposi's sarcoma is the most common and well-studied tumor in AIDS patients. In North America and Europe, it is found in more than 30% of AIDS patients. SC is not a new disease. Described for the first time in 1872, it is a vascular tumor, most likely of lymphatic-endothelial origin. Before the detection of AIDS, it was rarely found in the United States and Europe. Most often it was found: in elderly men of European descent or from the Mediterranean; Negro Africans, including young people; in patients with immunodeficiency as a result of drug treatment.

Taking into account the severity of local changes and involvement in the process of internal organs or lymph nodes, 4 clinical subtypes of SC were identified. Nodal SC is manifested by bluish-brown or brownish-brown nodules or plaques on the skin (first they usually appear on the extremities), although these impressions can be numerous and large. Red and infiltrative subtypes of SC are characterized by local destructive changes, and the first subtype usually causes fungal skin lesions, and the second one causes deep disorders in tissues and cysts that occur as a result of direct spread from the skin. For disseminated SC, or its lymphatic variant, typically distant metastasis to internal organs or lymph nodes.

Histological forms of SC observed in AIDS patients do not differ from the sporadic (classical form) identified earlier. However, clinically, SC in AIDS patients tends to be more aggressive than an invasive malignancy. In the sporadic form of SC, the internal organs are affected in less than 10% of cases, in AIDS - in about 72%. The lymph nodes are most often involved in the process (81%), the lung impressions are more rare (11%), but they can lead to a serious condition of the patient. The extra dermal impressions occur in the absence of skin in 5% of patients, impressions in classical SC are usually painless, amenable to X-ray and chemotherapy. In AIDS, they are more malignant, and chemotherapy is not always effective and is rarely used to avoid further deterioration of the immune status of patients.

The brain damage associated with systemic disseminated SC is extremely rare. The reasons for the rare impression of the CNS in SC remain unclear.

It is assumed that it arises from the endothelial cells of lymphatic vessels, which are absent in the CNS.

The local X-ray irradiation usually is applied at limited impression of skin with distribution in the underlying fabrics of the patients; the bigger and even total irradiation of a body is applied in severe cases. A positive effect is achieved in 93% of cases.

The chemotherapy is carried out in more aggressive and widespread form of a disease at patients with AIDS proceeding with impression of TsNS. The usage of cytostatic agents in AIDS patients requires the great caution due to deep immunosuppression. The significant hopes were placed on the treatment of SC with interferon, taking into account the ant proliferative, antineoplastic and antiviral effects of the drug. However, studies have shown that the use of interferon does not lead to treatment of patients. The direct effect of treatment in most cases is minimal or partial, and in some patients there is progression of the disease. In addition, the low doses of interferon were ineffective, and high doses, as a rule, a toxic effect on the liver. The tumor resorption was observed in the majority of patients receiving thalidomide, whereas in the control group of patients this effect was registered in isolated cases.

The aim of the study is to analyze the clinical case of Kaposi's sarcoma in an HIV-infected person.

Materials and methods.

The general clinical and laboratory-instrumental studies were performed in the laboratory of the Chernivtsi Regional Center for AIDS Prevention and Control. The diagnosis of HIV infection was established on the basis of epidemiological history, clinical data and confirmed by laboratory methods: serological (detection of specific antibodies to HIV in enzyme-linked immunosorbent assay (ELISA) and immune blotting reaction (IB)) and immunological + content). There is a clinical case of HIV infection in a patient who first sought medical help.

Patient S., 36 years old, turned to the regional center for prevention and control of AIDS with complaints of severe general weakness, pain in the lower extremities, inability to stand and walk, rough crusts on the soles, the presence on the palms of rashes grouped yellowish elements, and on lower

extremities of red rashes. He also worried about itchy skin and a slight dry cough.

The patient was sent by the doctor of Chemivtsi Regional AIDS Center on October 3, 2020 to the infectious department with a diagnosis of HIV infection, IV clinical stage, exhaustion syndrome, streptoderma of the lower extremities and left-sided bronchopneumonia.

It became known from the anamnesis of the disease that he was ill for 4 months, when his body temperature rose and he began to lose weight. Independently chaotically prescribed medication brought down the body temperature. He is divorced and he does not work anywhere. It has nothing to do with the cause of the disease. Subsequently, a rash appeared on the skin of the soles, which turned into crusts after a while and began to thicken, which forced the patient to go to a surgeon at the clinic where he was diagnosed with Streptoderma of the lower extremities, after which he was referred to a dermatologist. After examination by a dermatologist, he was hospitalized for treatment at a dermatological and venereological dispensary, where a blood test for antibodies to HIV infection was taken. A positive result was obtained.

At examination in an infectious hospital, the patient's condition was moderate; body temperature was 38.3 °C, manifestations of cachexia (height 163 cm, weight - 46 kg). The skin is pale, dry skin. The tongue was dry, slightly covered with a white layer; there were slight redness of the pharyngeal mucosa, polyadenopathy. Lymph nodes are enlarged to 1 cm, slightly sensitive. Breathing through the nose is not difficult; it's above the lungs vesicular respiration. Heart tones are rhythmic, weakened. Pulse 88 beats / min., blood pressure is 120/70 mm Hg. Art. The abdomen is soft, painless; the liver protrudes from the edge of the costal arch by 1 cm, painless. The spleen is not enlarged. Stools are decorated, without pathological impurities, urination is not disturbed.

St. lokalis: there were a large number of dense distorted crusts of dirty grayish color on the soles. There are many rounded spots of red color and different sizes on the skin of the upper and lower extremities, which have a raised edge with peeling in the central part of the foci. The same elements are on the body. The presence of rash grouped yellowish elements on both palms.

The patient was consulted by a dermatologist, who noted that both feet were hyperkeratotic. The diagnosis was onychomycosis of both extremities and upper nail plates, common psoriasis. He was additionally examined by a surgeon. The conclusion was: the patient had onychomycosis with generalization of the process on the skin, post-traumatic dysarthrosis of both knee joints and expressed flexion-flexion contracture.

The material for laboratory research from a sole was taken, dedicated to St. Aureus and the fungus *Candida albicans*.

The patient was prescribed prospidin 100 mg intramuscularly once a week on the background of general strengthening and immunomodulatory therapy. The course dose was 3000 mg. After administration of 1000 mg of prospidin, the rash decreased in size, became flat, the edema was insignificant, and the erosions formed after the vesicles were epithelialized. At the end of the course, most of the spotted and nodular elements regressed, leaving hyper pigmented spots. Nodes and tumors do not protrude above the level of the skin, have a bluish brown color. The swelling of the right arm decreased and its volume approached the size of the left. After 3 months, the second course of prospidin was performed. The patient was on the dispensary register for 5 years after treatment. No new rashes were detected during follow-up examinations. Brown spots remained at the site of manifestations of SC. The lymph nodes are not enlarged. There are no signs of systemic disease from the internal organs. The patient's condition improved slightly after 5 days, began to get out of bed and take a few steps, decreased itching of the skin, and partially removed the crust from the sole.

The patient was discharged from the hospital in October 18, 2020. He was sent to the AIDS center for registration at the dispensary. He was registered and received antiretroviral therapy, first-line.

Conclusions

1. Thus, the analysis of literature data and own observations give grounds to assert that SC is not a casuistic dermatosis, but especially forms associated with AIDS. However, often scales are atypical, combined clinical variants of the disease, as evidenced by our observations.

2. The knowledge of clinical variants and forms is essential for choosing the optimal treatment tactics and assessing the prognosis of the disease, because each clinical form is characterized by individual sensitivity to cytostatics.

3. According to many years of own experience, the most effective method is the combined usage of prospidin and corticosteroid hormones.

4. The participation of the medical service in carrying out measures on sanitary protection of the territory of the country and foreign states, as well as among persons returning to the country from long foreign business trips, members of their families and foreign citizens staying in Ukraine.

5. The sanitary and epidemiological surveillance of HIV infection involves monitoring the implementation of norms and rules of sanitation in treatment and prevention facilities, forecasting the spread of HIV infection and the choice of management decisions to curb HIV infection or morbidity.

6. The manifestation of SC in patients with HIV infection is influenced by a decrease in the absolute number of CD4 + T-lymphocytes less than 200 cells / μ l and a high level of HIV RNA concentration in blood plasma (more than 100 thousand copies / ml).

7. The incidence of SK negatively affects the life expectancy of HIV-infected people: mortality was 58%, while in the control group 23% of deaths were registered. ARVT significantly reduces the incidence of death in patients with AIDS-associated SC.

References

1. Dalla Pria A, Pinato DJ, Bracchi M, Bower M. Recent advances in HIV-associated Kaposi sarcoma. *F1000Res*. 2019;8.

2. Ngalamika O, Minhas V, Wood C. Kaposi's sarcoma at the University Teaching Hospital, Lusaka, Zambia in the antiretroviral therapy era. *Int J Cancer*. 2015;136(5):1241-2. pmid:25196932

3. Pilleron S, Soerjomataram I, Charvat H, Chokunonga E, Somdyala NIM, Wabinga H, et al. Cancer incidence in older adults in selected regions of sub-Saharan Africa, 2008-2012. *Int J Cancer*. 2019;144(8):1824-33. pmid:30238972

4. Mariggio G, Koch S, Schulz TF. Kaposi sarcoma herpesvirus pathogenesis. *Philos Trans R Soc Lond B Biol Sci*. 2017;372(1732).

5. Facciola A, Venanzi Rullo E, Ceccarelli M, D'Aleo F, Di Rosa M, Pinzone MR, et al. Kaposi's sarcoma in HIV-infected patients in the era of new antiretrovirals. *Eur Rev Med Pharmacol Sci*. 2017;21(24):5868-9. pmid:29272026

6. Mosam A, Aboobaker J, Shaik F. Kaposi's sarcoma in sub-Saharan Africa: a current perspective. *Curr Opin Infect Dis*. 2010;23(2):119-23. pmid:19996745

7. Baykal C, Atci T, Buyukbabani N, Kutlay A. The Spectrum of Underlying Causes of Iatrogenic Kaposi's Sarcoma in a Large Series: A Retrospective Study. *Indian J Dermatol*. 2019;64(5):392-9. pmid:31543535

8. Hiatt KM, Nelson AM, Lichy JH, Fanburg-Smith JC. Classic Kaposi Sarcoma in the United States over the last two decades: a clinicopathologic and molecular study of 438 non-HIV-related Kaposi Sarcoma patients with comparison to HIV-related Kaposi Sarcoma. *Mod Pathol*. 2008;21(5):572-82. pmid:18376387

9. Mtonga W, Mujajati A, Munkombwe D, Kalungia A, Muungo LT, West J, et al. Therapeutic Outcomes in AIDS-Associated Kaposi's Sarcoma Patients on Antiretroviral Therapy Treated with Chemotherapy at Two Tertiary Hospitals in Lusaka, Zambia. *Curr HIV Res*. 2018;16(3):231-6. pmid:29992888

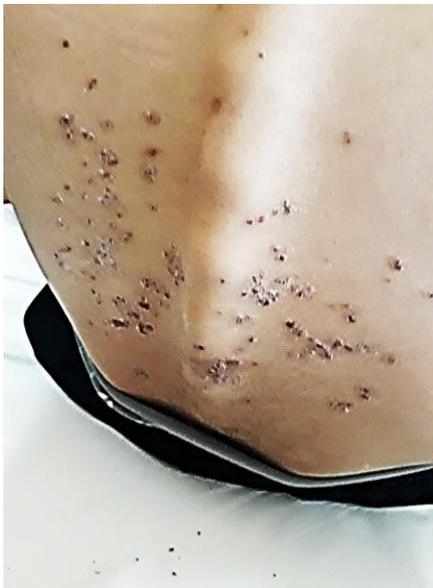


Fig 3 Rashes on legs



Fig1 Candidas of arms

Fig 2 Rashes on body



Fig 4 Dense crusts on the sole.



Fig 5 Bulk items on lower extremities

