

## Kaposi Sarcoma in an Unusual Parts

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Submitted: 10-10-2023

Accepted: 20-10-2023

**ABSTRACT:** Kaposi sarcoma is an Angio proliferative lump which has experienced considerable epidemiological change since the original description by Moritz Kaposi in 1872 (PAUL CURTISS, AN UPDATE ON KAPOSI SAARCOMA EPIDEMOLOGY,PATHOGENESIS AND TREATMENT). This composition deals with the incarnation of KS in an usual anatomic regions. Unusual locales of KS involvement include the musculoskeletal system, central and supplemental nervous system, larynx, eye, major salivary glands endocrine organs, heart, thoracic conduit, urinary system and bone. It's now important for clinicians to aware of Kaposi's sarcoma manifesting in a growing variety of clinical surrounds (Pantanowitz & Liron Pantanowitz, 2008; Pantanowitz & Liron Pantanowitz, 2008)

### I. BACKGROUND:

An uncommon condition known as Kaposi's sarcoma has four subtypes: classic, epidemic, endemic, and Iatrogenic (transplant-related).which are all brought on by the oncogenic virus known as Human Herpes Virus 8(Gabriela Rusu-Zota, 2022 May:). The potential development of Kaposi's Sarcoma is predicated on the viral infection itself, the oncogenic characteristics of HHV8, and immune system failure.Spindle cell growth with slit-like vascular gaps, plasma cell infiltration, and lymphocyte infiltration are typical histopathological findings.Depending on the variant, the clinical presentation varies; some patients have a slow-moving disease, while others have an aggressive disease. Surgery, radiation therapy, chemotherapy, immunotherapy, and highly active antiretroviral therapy are a few of the available treatments (Gabriela Rusu-Zota, 2022 May:)

### o CLASSIC:

European descent, presents with lesions that are confined to the lower extremities and affects men 15:1 more The most common type of Kaposi's sarcoma, which is typically found in elderly men of Mediterranean or Eastern frequently than women (Carlos S. Restrepo, Jul 1 2006)

### o ENDEMIC (KS):

In the 1950s, endemic neoplasms cases were among the most prevalent ones seen in central Africa, affecting men, women, and children.KS rose to become the most prevalent cancer in men, with 48.6% of men with cancer reporting having it, while 17.9% of women with cancer reported having it.(PAUL CURTISS, AN UPDATE ON KAPOSI SAARCOMA EPIDEMOLOGY,PATHOGENESIS AND TREATMENT)

### o IATROGENIC:

Up until now, cases of this iatrogenic variant of KS have been on the rise. In the 1970s, organ transplant recipients and other patients who were receiving long-term immunosuppression for other illnesses were also found to have an IATROGENIC form of KS. (Carlos S. Restrepo, Jul 1 2006)

### II. INTRODUCTION:

Kaposi is a low-grade mesenchymal tumor that affects the blood and lymphatic vessels. It primarily affects the skin but can also spread to other organs like: (Maria Manuela Chemas-Velez MD a b, 2020)

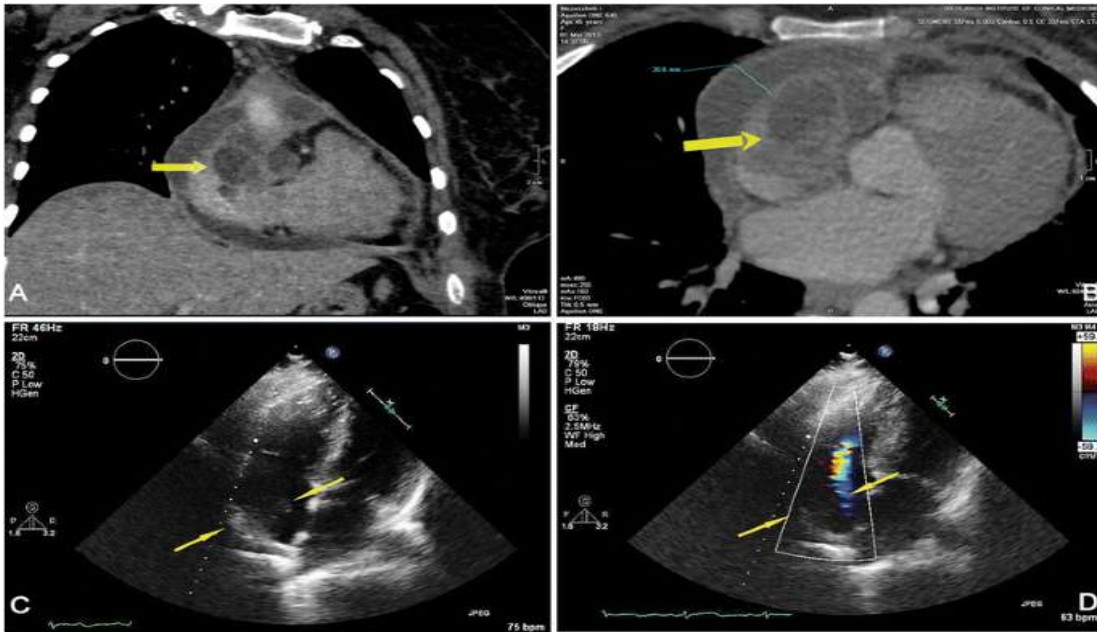
- Kaposi sarcoma in visceral organs
- Kaposi sarcoma of the subcutaneous tissue
- Kaposi sarcoma in unusual locations

**KAPOSI SARCOMA IN VISCERAL ORGANS**

**HEART:**

Primary tumors of the heart are very rare. Only about 6% of these tumors are malignant there are only 10 reported cases of primary cardiac Kaposi's sarcoma in non-immunodeficient persons. Kaposi sarcoma occurs mainly in skin, but visceral

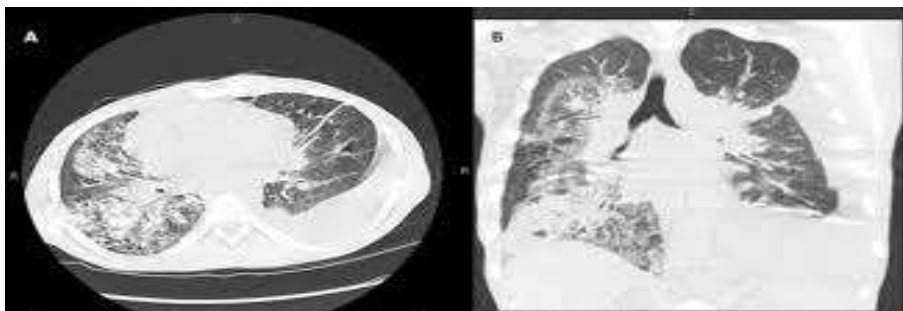
organs also get affected, especially in patients with AIDS. Cardiac KS lesion mostly remains unrecognized during clinical and imaging investigation and diagnosed only by pathologists. Compared to the myocardium or endocardium, the epicardium (subepicardial adipose tissue) appears to be more frequently affected. (Dezube, 2008, p. 8:190)



**LUNGS:**

Kaposi sarcoma in patient with AIDS involves the lungs more often than it does in the African form of the neoplasm. In each case, the chest radiographs taken just prior to the initial lung biopsy procedure were examined. Despite the fact that some of the patients required multiple biopsies

for the diagnosis, only the radiologists' graph used before the initial biopsy was used to rule out the biopsies may have an impact on the upcoming radiographic examination. The presence of hilar adenopathy and pleural effusions were noted. (CJ Sivit, 1987)



**THORACIC DUCT:**

Chylothorax is a well-known, albeit rare, KS manifestation that affects the mediastinum and the thoracic duct. Chylothoraces are frequently associated with the development of upper airway

KS disease. Although KS-related chylothorax formation was initially believed to be caused by metastatic KS to the thoracic duct, more according to recent research, this might occur due to the development/consideration of in-situ KS in this area

(Pantanowitz & Liron Pantanowitz, 2008) (CJ Sivit, 1987). demonstrates malformations of the trachea, lymph nodes, pleura, and chest wall. Haemoptysis, dyspnea, fever, and a chronic cough are typical clinical symptoms. (Carlos S. Restrepo, Jul 1 2006)

○ **THYROID GLAND:**

The diagnosis was established at the autopsy in 2 cases. FNA was used to establish the diagnosis in the other individuals. Patients have developed a slowly growing asymptomatic thyroid nodule and, in one case, hypothyroidism as a result of the thyroid gland's real death by KS. (Pantanowitz & Liron Pantanowitz, 2008)

○ **SALIVARY GLANDS:**

According to reports, patients with salivary gland KS often present for clinical evaluation due to a mass or swelling ranging in size from 1 cm to 4 cm on the major salivary gland that persists for 1 to 70 months [103]. Research into the presence of this virus was prompted by the discovery of HHV8 DNA in saliva. They found that HHV8 does not appear to infect salivary glands in HIV-negative patients, nor does it play a pathogenic role in epithelial and vascular tumors of non-KS salivary glands. in some salivary gland tumors. HHV8 does not appear to infect salivary glands in HIV-negative patients, nor does it play a pathogenic role in non-SK epithelial and vascular salivary glands (Pantanowitz & Liron Pantanowitz, 2008).

○ **PITUTARY GLANDS:**

There was no evidence of KS impacting the pituitary. In particular, pituitary SK was not found in a group of 49 AIDS patients undergoing autopsy. More specifically, the pituitary gland has been studied. (Pantanowitz & Liron Pantanowitz, 2008)

○ **URINARY SYSTEM:**

Even though HHV8 is shed in patient urine, KS of the urinary system has only occasionally been reported. Three cases of KS of the urinary bladder have been reported. It's interesting to note that all three patients had renal transplants recipients. One patient had KS with a transplanted child. (Pantanowitz & Liron Pantanowitz, 2008)

○ **BRAIN:**

In one patient's intracranial lesion, human herpes virus-8 (HHV8) DNA was found by PCR

primarily in the cerebrum, but has also been observed in the dura mater, pons, meninges, and cerebellum. KS within the brain seems to happen nearly always with generalized KS disease, with extensive visceral involvement brain-related symptoms KS are underreported, showing significant necrosis and bleeding. Nodules with KS tumor cells were said to be distinctly pleomorphic. KS appears as homogeneous on a CT scan. lesions that are large, dense, and have little edema around them and little mass impact. brain KS lesions on MRI also show up as a homogeneous mass, with a relatively T2 weighted sequence and a high signal intensity. (Pantanowitz & Liron Pantanowitz, 2008)

○ **LARYNX:**

The majority of patients had AIDS-related KS, but there have also been cases of laryngeal KS in people who were HIV-negative. Hoarseness, throat discomfort, and other symptoms ease, a coughing fit, aphonia, dysphagia, stridor, or completely blocking the airway. Examination might show a purple vascular mass or, more likely, laryngeal edema lesion. (Pantanowitz & Liron Pantanowitz, 2008)

○ **Eye:**

KS of the face, periorbital edema may develop KS lesions on the outside of the eye are also fairly common. There have been reports of KS of the conjunctiva and ocular adnexa in association with both AIDS-related and Classic KS. Bulbar conjunctival and eyelid KS has been observed in isolation. A mass lesion or a similar symptom may be present with external ocular KS. Also as a subconjunctival bleeding. Interestingly, enhanced conjunctival blood flow sludging has been shown in KS patients. In one instance involving widely dispersed KS. At autopsy, a tumor involving both eye's choroids was found. (Pantanowitz & Liron Pantanowitz, 2008)

### III. CONCLUSION:

Due to their typically chronic course and stability of skin compromise, classic KS and endemic KS are variants of KS that rarely require radiologic evaluation. The most prevalent types of the disease, iatrogenic KS and AIDS-related KS, are frequently disseminated or symptomatic and may thus necessitate imaging studies for both diagnosis and staging. The range of imaging manifestations of KS in the different affected

organs must be known to the radiologist. (Carlos S. Restrepo, Jul 1 2006)

Compared to the myocardium or endocardium, the epicardium (subepicardial adipose tissue) appears to be more frequently affected in heart (Dezube, 2008, p. 8:190). the presence of hilar adenopathy and pleural effusions were noted in radiographic examination of lungs. (CJ Sivit, 1987). Chylothorax is a well-known, albeit rare, KS manifestation that affects the mediastinum and the thoracic duct. (Pantanowitz & Liron Pantanowitz, 2008) (CJ Sivit, 1987). Patients have developed a slowly growing asymptomatic thyroid nodule and, in one case, hypothyroidism as a result of the thyroid gland's real death by KS (Pantanowitz & Liron Pantanowitz, 2008)HHV8 does not appear to infect salivary glands in HIV-negative patients, nor does it play a pathogenic role in non-SK epithelial and vascular salivary glands (Pantanowitz & Liron Pantanowitz, 2008).There was no evidence of KS impacting the pituitary. (Pantanowitz & Liron Pantanowitz, 2008). KS of the urinary system has only occasionally been reported. (Pantanowitz & Liron Pantanowitz, 2008). . brain KS lesions on MRI showalso show up as a homogeneous mass, with a relatively T2 weighted sequence and a high signal intensity. (Pantanowitz & Liron Pantanowitz, 2008). A mass lesion or a similar symptom may be present with external ocular KS.ply as a subconjunctival bleeding Interestingly. Enhanced conjunctival blood flow sludging has been shown in KS patients. (Pantanowitz & Liron Pantanowitz, 2008)

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