KAPOSI'S SARCOMA AND TOXOPLASMA GONDII BRAIN ABSCESS IN A SPANISH HOMOSEXUAL

SIR,—Several outbreaks of Kaposi's sarcoma and serious opportunistic infections among homosexual men have recently been reported in the United States, possibly due to a defect in cellular immunity. In their series Hymes et al.[1] describe one such patient with a frontal lobe mass, suggesting brain metastasis; no necropsy was done.

In October, 1981, a 35-year-old male homosexual was admitted with a 2 week history of fever, headache, and purple skin lesions on the trunk. Anorexia and weight loss had started 6 months earlier, and 2 months before admission the first purple skin lesion had appeared. Although he had a stable, one-partner relationship, during visits to New York in 1974 and Turkey in 1980 he had had sexual contacts with different partners. Over the 2 years before admission he had had repeated episodes of gonorrhoea. He denied habitual drug use. He had five purplish cutaneous nodules on the trunk and one on the oral mucosa. There was generalised lymphadenopathy, but no hepatic or splenic enlargement. Routine blood tests were unremarkable and HBsAg negative. Histology of the nodules revealed Kaposi's sarcoma. Fibreoptic endoscopy suggested gastric involvement. While he was in hospital his headache intensified and a computerised tomographic scan revealed a right frontoparietal mass. Left hemiparesis developed. A well demarcated spherical mass 3 cm in diameter was removed, but the patient did not recover consciousness and died 4 days after surgery.

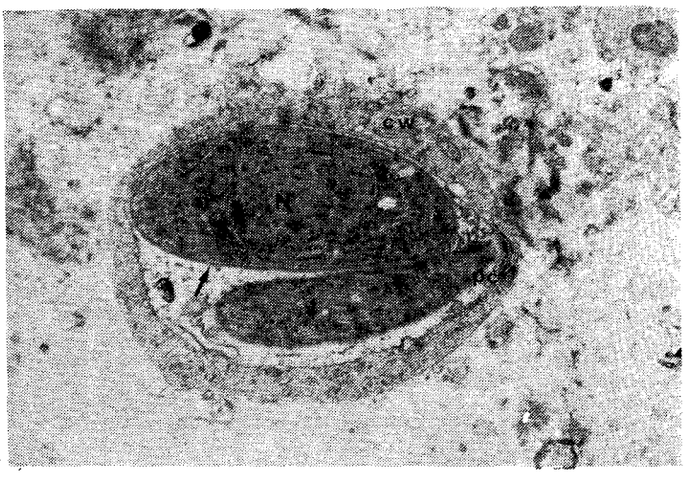
Necropsy authorisation was limited to the thorax and abdomen. Both lungs were congested with areas of consolidation. The trachea showed white plaques. Three angiomatous-like nodules (5–15 mm in diameter) were found in the prepyloric gastric region. The urinary bladder mucosa was oedematous and there were two ulcers. No lesions were found in the intestinal tract and other abdominal organs. Histology disclosed Kaposi's sarcoma in the skin, oral mucosa, stomach, and paratracheal, mediastinal, and abdominal lymph nodes. There was gram-negative bronchopneumonia with isolated *Candida albicans* faci and cytomegalovirus inclusions in the adrenals, liver, and lungs.

The brain mass had a necrotic centre surrounded by a thin border of nonspecific granulomatous tissue, with a proliferation of vessels and round cell infiltrates. No giant multinucleated cells were found. Round or oval organisms, mostly in large groups, were identified within the inflammatory tissue. They reacted faintly with periodic acid/Schiff but were well visualised with Giemsa and were positive with silver methenamine. Electron microscopy disclosed the features of cystic and pseudocystic forms of *Toxoplasma gondii*.[5] Each sporozoon had a double membrane of approximately 40 nm and a clearly visible nucleus, a polar conoid with a few toxonemas confluent to the polar ring, and figures of endodiogeny among the toxoplasma within the cysts. The cysts had two membranes, the inner one being large and granular; pseudocysts were surrounded by a single cytoplasmic membrane of the host cell. The toxoplasmas measured 3–7 μm and were crescent shaped and usually found as large cysts of five or more protozoa (see figure).

Our case is typical of multiple opportunistic infections in a male homosexual with Kaposi's sarcoma without apparent immunosuppressive disease.[2] In a review of U.S. cases of opportunistic infections and Kaposi's sarcoma the main CNS infection was cryptococcal meningitis.[2] Three cases of CNS toxoplasmosis were reported, but the lesions were not described and none of the patients had Kaposi's sarcoma. We know of no previous reports of *T. gondii* cerebral lesions and Kaposi's sarcoma.

At first we thought of brain metastasis[3] as the cause of the space-occupying lesion. Awareness that in patients with Kaposi's sarcoma neurological involvement may be due to a treatable condition such as toxoplasmosis is very important.

Reports of other European cases of opportunist infections in male homosexuals with[4] or without[5] Kaposi's sarcoma suggest that the international homosexual community as a whole is at risk. A common feature is asymptomatic cytomegalovirus infections transmitted enterically; these could cause immunosuppression.



Electron microscopy of a toxoplasma cyst with two visible protozoa.

N = nucleus; t = toxonema; pc = polar conoid; CW = cyst wall. Protozoal double membrane indicated by arrow. (×3500.)

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MULTIPLE OPPORTUNISTIC INFECTION IN A MALE HOMOSEXUAL IN FRANCE

SIR,—The first cases of acquired cellular immunodepression among male homosexuals were reported by the Centers for Disease Control.[6] Since then, several cases of opportunistic infection and of Kaposi's sarcoma among male homosexuals have been reported in California and in the East of the U.S.A.[7–9] In Britain, a case in a homosexual who had been to U.S.A. has also been reported.[10] We would like to report the first similar case seen in France.

The patient is a male homosexual, aged 38. His last visit to New York was in February, 1980, when, for the first and only time, he took "poppers" several times. He has never taken other drugs before or since. He was referred to Claude Bernard Hospital in July, 1981, because of continuous high temperature, loss of 5 kg in weight, malaise, and a dry cough. Clinical examination revealed disseminated microlymphadenopathies only. The chest X-ray was normal. The white blood cell count was 4500/μl (47% neutrophils, 10% eosinophils, 33% lymphocytes, 10% monocytes [without abnormalities]). Test results for latex fixation and antinuclear antibody were negative. The levels of IgG and IgA were high (3230 mg/dl and 1190 mg/dl, respectively). IgM levels were normal. Circulating immune complexes were present. Tests for antibodies were all negative except for the cytomegalovirus (CMV) which was

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