AIDS brief

Kaposi's best treated with antiretroviral and chemotherapy

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Treating severe Kaposi's sarcoma (KS) in South Africa is more likely to be successful when chemotherapy is used alongside antiretroviral therapy, researchers from the University of KwaZulu-Natal reported recently at the 17th Conference on Retroviruses and Opportunistic Infections (CROI) in San Francisco.

KS is a skin cancer that is considered to be an AIDS-defining illness. In Europe and North America the condition occurs largely in men who have sex with men, but in sub-Saharan Africa it is seen in all exposure categories.

The incidence of KS has been rising in recent years as the number of severely immunosuppressed people grows in sub-Saharan Africa, and in KwaZulu-Natal the incidence is estimated at 30 cases per 100 000 inhabitants per year.

Although milder cases of KS often fade away after antiretroviral therapy is begun, more severe disseminated cases that affect the internal organs such as the lungs, or which are widespread over the body, may not resolve as immune status improves, and the prognosis of people with advanced KS is relatively poor.

Researchers at the University of KwaZulu-Natal designed a study to determine whether chemotherapy provided alongside antiretroviral therapy would be safe and effective.

The KAART study was an open-label, randomised controlled trial. All the patients were starting HIV treatment for the first time and had biopsy-proven KS.

A total of 59 patients were randomised to receive antiretroviral therapy alone (3TC, d4T and nevirapine in the combined pill Triomune). A further 53 patients were randomised to receive both Triomune plus anti-KS chemotherapy consisting of bleomycin, doxorubicin, and vincristine (the ABV regimen). This regimen was chosen because it is the most commonly available in southern Africa.

Response rates were evaluated according to established prognostic factors. Using an intent-to-treat analysis, the investigators compared clinical response rate between the two arms after 12 months of treatment, as well as rate of response, overall survival and quality of life.

Most of the patients had poor prognostic factors. KS was staged as T1 (poor risk) in 89% of individuals, 58% had a CD4 cell count below 200 cells/mm^3 and 42% had another serious illness, tuberculosis being the most common (34%).

The 12-month overall response rate was significantly better in the patients who received chemotherapy in addition to antiretroviral therapy (66% v. 39%, p=0.005). The response rate was also significantly faster in this group of patients (p<0.001). However, overall 12-month survival was comparable between the two arms of the study at 76%. Adherence, CD4 cell count increases, fall in viral load and the frequency of side-effects were comparable between the two groups of patients.

The most important factor associated with overall response was KS disease staging and the presence of systemic disease (opportunistic infections such as tuberculosis) (p=0.03).

Quality-of-life information was available for 111 patients. This improved significantly from a score of 50 at baseline to 67 after 1 year of treatment (p<0.001). Improvements were observed in emotional wellbeing, cognitive ability, social functioning, and most symptoms. There was no difference in quality-of-life changes between the two arms of the study, but there was a strong, though non-significant, trend towards greater improvement in pain in the chemotherapy group.

Presenting the findings, Dr Anisa Mosam of the University of KwaZulu-Natal said: 'Early addition of chemotherapy plays an important palliative role in patients with Kaposi's sarcoma in sub-Saharan Africa.'

Mosam A, *et al.* The KAART trial: a randomised controlled trial of HAART compared to the combination of HAART and chemotherapy in treatment naïve patients with HIV-associated Kaposi's sarcoma in KwaZulu-Natal, South Africa, NCT 00380770. Seventeenth Conference on Retroviruses and Opportunistic Infections, abstract 32, San Francisco, 2010.

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Single Suture

Overprotection causes stifling

Parents who overprotect their children could be stifling their brain development and could even predispose them to future mental illness. Children whose parents are overprotective or neglectful are believed to be more susceptible to psychiatric disorders, which in turn are associated with defects in part of the prefrontal cortex.

Kosuke Narita and colleagues of Gunma University, Japan, scanned the brains of 50 people in their 20s and asked them to fill out a survey about their relationship with their parents in their first 16 years. Those with overprotective parents had less grey matter in the prefrontal cortex than those who had healthy relationships.

Narita K, *et al. Progress in Neuro-Psychopharmacology and Biological Psychiatry.* DOI:10.1016/j.pnpbp.2010.02.025