

Clearance of Recurrent, Classical Kaposi's Sarcoma Using Multiple Paclitaxel Treatments

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Sir,

Paclitaxel (PTX) has been shown to be efficacious with minimal toxicity in patients with AIDS-associated Kaposi's sarcoma (KS) and transplantation-associated KS. Recently, a few cases of non-AIDS-associated KS treated with PTX have been reported. We report here a patient with classical KS who showed a dramatic response to weekly PTX therapy. Complete remission was maintained for 8 months. After lesions recurred, the same PTX regimen was resumed, resulting in a renewed remission.

CASE REPORT

A 52-year-old Japanese man had been treated for classical KS since the age of 32 years. Despite several excision and radiotherapy treatments (totally 65 Gy for each lesion), the disease progressed to multiple tumours on his extremities. Physical examination in November 2003, before initiation of PTX treatment, showed multiple violaceous to dark-red patches, plaques, and

nodules of varying sizes on a background of severely oedematous skin on his legs, arms, buttocks, hands and soles (Fig. 1A). Histological examination showed multiple small slit-like vascular proliferations in the dermis and spindle cell proliferation around these vessels (Fig. 2A, B). The spindle cells were CD34-positive. Human herpesvirus 8 DNA sequences were detected from skin tumour by PCR technique. Human immunodeficiency virus (HIV) antibody was negative in serum. There was no evidence of systemic involvement of KS. Weekly, intravenous treatments with PTX (TAXOL®, Bristol-Myers Squibb Company, Mayaguez, Puerto Rico) 80 mg/m²/week, for 3 consecutive weeks, every 4 weeks were then initiated. After 4 treatment courses, the KS dramatically improved with an almost complete disappearance of all skin lesions and pain due to oedema of the legs. The response was maintained for 8 months, whereafter the lesions recurred. The same regimen of PTX was immediately resumed for 2 further courses, again resulting in almost complete remission (Fig. 1B). Asymptomatic Grade 3 neutropaenia (granulocyte count 500–1000/mm³) occurred.

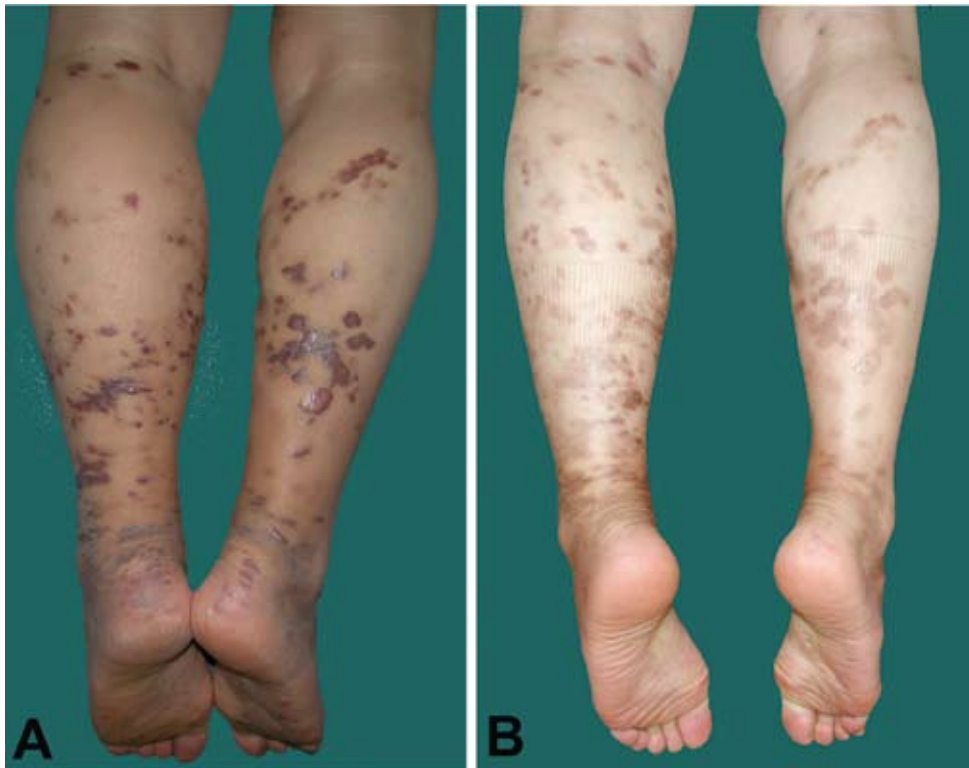


Fig. 1. (A) Multiple violaceous to dark-red patches and plaques of varying sizes on both legs, before treatment with paclitaxel. (B) The lesions improved dramatically, with an almost complete disappearance of all skin lesions, after treatment with paclitaxel.

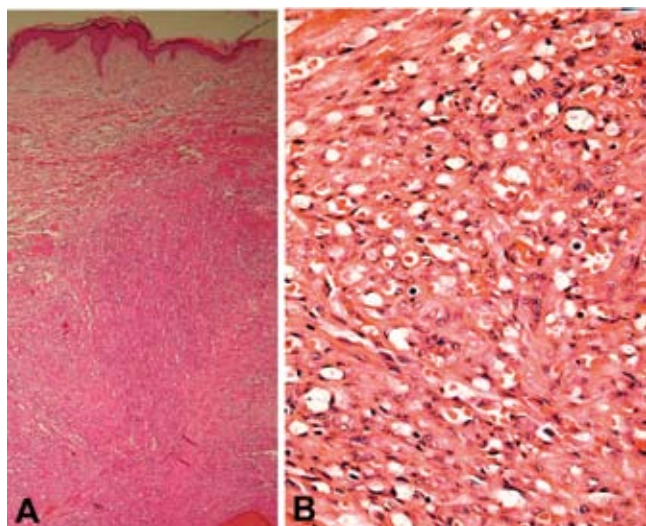


Fig. 2. (A) Histological examination shows dermal vascular proliferation and spindle cell proliferation in the dermis around these vessels. (B) The sieve-like appearance, with blood cells between the cleft-like spaces.

DISCUSSION

The efficiency of PTX given as the second- or third-line therapy has been well evaluated in patients with AIDS-related KS. In a large published study, complete or partial response was achieved in 56% of AIDS-related patients with KS. The median duration of complete or partial response was 8.9 months and the median time to disease progression in responding patients was 12.9 months (1).

Radiotherapy or surgery for localized KS, and radiotherapy, chemotherapy or immunomodulatory agents for disseminated KS, are usually selected. Recently, a few cases of non-AIDS-associated classical KS treated with PTX were reported (2–5). In these reports, 11 patients who failed to respond to interferon (IFN)- α or

cytotoxic chemotherapy showed improvements shortly after treatment with weekly PTX or docetaxel (DOC). Two patients showed a recurrence within 2 months and 14 months after the end of therapy. Weekly PTX or DOC therapy was reintroduced for these patients and was successful again (2).

PTX and DOC have potent anti-angiogenic activities. Sgadari et al. (6) showed that PTX down-regulates Bcl-2 anti-apoptotic effect and blocks the growth, migration and invasion of KS lesions in mice.

Our experience suggests that weekly PTX is an effective alternative in the treatment of recurrent classical forms of KS even after conventional therapies. When KS recurs after weekly PTX therapy has been stopped, re-introduction remains effective.

REFERENCES

1. Tulpule A, Groopman J, Saville MW, Harrington W Jr, Friedman-Kien A, Espina BM, et al. Multicenter trial of low-dose paclitaxel in patients with advanced AIDS-related Kaposi sarcoma. *Cancer* 2002; 95: 147–154.
2. Fardet L, Stoebner PE, Bachelez H, Descamps V, Kerob D, Meunier L, et al. Treatment with taxanes of refractory or life-threatening Kaposi sarcoma not associated with human immunodeficiency virus infection. *Cancer* 2006; 106: 1785–1789.
3. Engin H, Celik I. Treatment of classic Kaposi's sarcoma with visceral involvement by weekly paclitaxel. *Clin Oncol* 2002; 14: 178.
4. Stoebner PE, Nocera T, Meynadier J, Meunier L. Efficacy of docetaxel in disseminated classical Kaposi's sarcoma. *Br J Dermatol* 2000; 143: 1319–1320.
5. Chao SC, Lee JY, Tsao CJ. Treatment of classic type Kaposi's sarcoma with paclitaxel. *Anticancer Res* 2001; 21: 571–574.
6. Sgadari C, Toshi E, Palladino C, Barillari G, Carlei D, Cereseto A, et al. Mechanism of paclitaxel activity in Kaposi's sarcoma. *J Immunol* 2000; 165: 509–517.