LETTER TO THE EDITOR

Buttock verrucous carcinoma treated by intra-arterial infusion chemotherapy

A 66-year-old woman presented with an ulcerated endophytic mass on the right buttock of 4 years’ duration (Fig. 1A) and an enlarging mass over the right foot for 6 months following a traumatic ulcer (Fig. 1C). The patient lived on the southwestern coast of Taiwan, where people drink deep well water. Hyperpigmentation, arsenical keratosis, and multiple Bowen’s diseases were noted on her chest and left leg. She had spent much time sitting during the past 10 years because of knees compromised by arthritis. Dermatologic examination revealed a 6 cm × 5 cm firm nodule, with an ulcer on the right buttock and a 5 cm × 5 cm nodule on the right foot. There was no regional lymphadenopathy. Biopsy revealed verrucous carcinoma of the right buttock and verrucous hyperplasia of the right foot. X-ray examination and pelvic CT showed no bony destruction. She was referred for regional chemotherapy.

The catheter (Jet Port Plus Allround catheter PFM, Köln, Germany) was inserted through the profunda femoral artery into the abdominal aorta. The tip of the catheter was placed at about the level of the third lumbar vertebra. The

Figure 1. Right buttock verrucous carcinoma (A) before and (B) after treatment. Right foot verrucous hyperplasia with punctate hyperkeratosis (arrows) (C) before and (D) after treatment.
patient was infused continuously with 50 mg of methotrexate every 24 hours using a pump (CADD-1, Deltec, St. Paul MN, USA) accompanied by intramuscular injection of leucovorin (6 mg) every 6 hours. The infusion was terminated when the white blood cell count dropped to 2880/µL (nadir) and 425 mg of methotrexate was given in total. The foot tumor disappeared 2 weeks later; the buttock tumor regressed, and the ulceration gradually healed. Bowen’s disease on the left lower leg and arsenical keratosis also disappeared after therapy (Fig. 1C and D). Then, the patient received a weekly infusion of 50 mg of methotrexate, until the wound healed completely after 8 months (Fig. 1B and D). The patient was in sustained complete remission 8 years and 10 months after treatment, when she died.

Verrucous carcinoma may develop at the site of chronic irritation and inflammation, such as decubitus ulcers [1,2]. Arsenic is a well-documented human carcinogen. Bowen’s disease, squamous cell carcinoma, and basal cell carcinoma are the most common cutaneous cancers in chronic arsenism. Only one case of verrucous carcinoma due to arsenic ingestion has been reported [3]. The coexistence of verrucous carcinoma and Bowen’s disease on the same patient may be explained by the formation of multiple tumors induced by chronic arsenism and an inflammatory process.

The treatment of choice for verrucous carcinoma is wide excision [1,4]. Other modalities including topical chemotheraphy, laser ablation, photodynamic therapy, and immunotherapy have been attempted [1,2,4]. Radiotherapy and systemic chemotherapy have limited application [1,4]. Recently, we showed that methotrexate given intra-arterially has excellent effects of preservation of cosmetic and functional integrity in verrucous carcinoma of the penis, lip, and thumb [5]. This case further confirmed the effectiveness of intra-arterial methotrexate infusion in the management of verrucous carcinoma, with concomitant remission of arsenical dermatosis. It offered an option in treating verrucous carcinoma for patients with unresectable lesions, or for those who are unwilling to undergo resection.

References