Resolution of Warts during Interleukin-2 Immunotherapy

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Human papilloma virus (HPV) infections are known to be responsible for the clinical manifestation of warts or wart-like lesions [1]. Warts and other dermatological problems, as well as some cancers, may result from a condition which compromises an individual's immune system, or from the administration of immunotherapy given to suppress immunity following organ transplantation [2]. The use of recombinant interleukin-2 (rIL-2) immunotherapy given to enhance cell-mediated immunity has not been examined at present for its in vivo effects on wart-like lesions [3, 4].

In December 1988, a 52-year-old white male was found to have renal cell carcinoma with bilateral pulmonary metastases. This individual over the past 18 years had experienced a chronic problem diagnosed by a dermatologist as common warts (*verrucae vulgares*). These warts had been present in large clusters on his elbow, knee, leg and foot, frequently causing pruritis, and were easily spread to nearby sites. These warts had been repeatedly but unsuccessfully treated with topical medication.

In January 1989, this patient underwent a left ne-phrectomy, and in February 1989 began a 32-day regimen of low-dose rIL-2 (Hoffmann-La Roche) by continuous infusion. After 24 days of immunotherapy with low-dose rIL-2, it was observed that all of this patient's warts had resolved. In addition, a large (2.5 cm) senile lentigo on his right hand, and a significant plantar's wart on his left sole, also resolved at the same time. Several small intradermal nevi remained unchanged. Peripheral blood samples of this patient drawn after 30 days of immunotherapy were tested in vitro both with and without rIL-2. His natural/lymphokine-activated killer cells successfully killed virally infected target cells and were significantly enhanced in the presence of rIL-2.

On day 60 (30 days after treatment) this patient returned for evaluation of response. Small clusters of warts had returned in their original sites. Radiographic evaluation revealed that while one lung lesion was no longer seen, overall there was a 69 % increase in the sum of the

measurable lesions, which thus constituted progressive disease. Whether topical application of rIL-2 would be a useful therapy is at present unknown.

References

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