

SOLID TUMORS AFTER HEART TRANSPLANTATION

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To the Editor:

We read with interest the article "Solid Tumors After Heart Transplantation: Lethality of Lung Cancer" by Pham and associates [1]. This excellent report examines the development of solid-organ tumors after cardiac transplantation and identifies 38 solid tumors in 36 of 608 heart transplant recipients. Skin tumors are identified in 15 patients, which represents a frequency of 2.1%.

We have recently reported our experience in skin cancer after heart transplantation in 92 heart transplant recipients who survived more than 6 months after the operation, with an average follow-up period of 43.3 months [2]. In our series, 26 skin cancers were found in 14 patients, which represents a frequency of 15.2%. In addition, more than one skin cancer developed in 5 of the 14 patients during follow-up, whereas common warts and keratotic and dysplastic lesions were observed and treated on photoexposed areas in many of the 14 patients.

Several factors probably account for the higher frequency of skin cancer observed in our patients compared with the results of Pham and associates. It is important to consider geographic factors such as the country, latitude, and amount of exposure to ultraviolet radiation. Most of our patients came from the northern and eastern regions of Spain. It is known that residents of sunny countries have a higher frequency of skin cancer than those living in countries with less solar radiation. On the other hand, patient characteristics such as skin type, pretransplantation exposure to ultraviolet radiation, posttransplantation period, immunosuppressive treatment, patient age, and dysplastic lesions are all important factors that may contribute to generate different skin cancer frequencies after transplantation. Pretransplantation exposure to sunlight must be considered because skin cancer may arise earlier in keratinocytes that have been previously damaged by ultraviolet radiation.

We found that the cumulative incidence of skin cancer increased as follow-up progressed, although surprisingly the time lapse for basal cell carcinoma was less than for squamous cell carcinoma, and the ratio of basal cell carcinoma to squamous cell

carcinoma inverted as follow-up progressed. In this sense, it has been observed in renal allograft recipients that azathioprine induces the appearance of keratotic and dysplastic lesions approximately 3 to 4 years after administration, and squamous lesions may develop later on [31]. We agree with Pham and associates that skin cancer after heart transplantation has a low mortality, that cardiac transplant recipients should be advised to minimize exposure to sunlight, and that the long-term use of azathioprine should be reconsidered. Nevertheless, we believe that in sunny countries the higher incidence of skin cancer warrants a more aggressive prevention of skin cancer and treatment of suspected premalignant lesions. In this sense, our protocol includes dermatologic examinations every 6 months, the regular use of sunblocks, prompt treatment of all suspicious lesions, and the reduction of azathioprine doses, particularly in older patients with long-term posttransplantation follow-up.

REFERENCES

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