

Skin Tumors in Patients Aged 90 Years and Older

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BACKGROUND. The aging of the population in the developed world is an accepted fact. Consequently, the number of patients aged 90 years or over with cutaneous cancer will increase in coming years.

OBJECTIVE. The objective was to determine the nature of skin lesions amenable to dermatologic surgery in patients aged 90 years or more.

METHODS. We studied the clinical histories of 52 outpatients in their 90s, who had had histopathologic studies made of their skin tumors when attended in the Hospital General de Alicante (Spain) between January 1999 and July 2002. We studied sex, age, type of tumor, site, associated disorders, regular medications, type of anesthesia, and type of treatment given.

JOSÉ C. PASCUAL, MD, ISABEL BELINCHÓN, MD, JOSÉ MANUEL RAMOS, MD, MAR BLANES, MD, AND ISABEL BETLLOCH, MD HAVE INDICATED NO SIGNIFICANT INTEREST WITH COMMERCIAL SUPPORTERS.

THE AGING of the population in the developed world is an accepted fact. Thus, in Spain in 1981 0.23% of the population was 90 years old or more, whereas in 2002 this group accounted for 0.51% of the population.¹ This subgroup has grown rapidly in recent years but there are little data on the use made of the health service by persons in this age group.²

We studied the clinical histories of a group of patients in their 90s who had had histopathologic studies made of their skin tumors when attended in the Hospital General de Alicante (Spain) between January 1999 and July 2002.

Patients and Methods

For localization of the patients we used the database of the Department of Pathology of our hospital. The search was limited to outpatients aged 90 years or more in whom histopathologic studies had been made of a skin tumor between January 1999 and June 2002. We found 52 patients in whom we studied sex, age, type of

RESULTS. The average age of the patients was 92.4 years. Thirty-six patients were women and 16 were men. Altogether the 52 patients had a total of 72 lesions. The most frequent diagnosis was basal cell carcinoma with 36 lesions, followed by 20 squamous cell carcinomas. The overall ratio of basal cell carcinoma to squamous cell carcinoma was 1.8. Patients had an average of 1.5 comorbid medical conditions and were taking an average of 2.3 regular medications.

CONCLUSION. Dermatologists often attend patients aged 90 years or over with nonmelanoma skin cancer. The most important decision is as to what is the best management of these patients.

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Results

The average age of the patients was 92.4 years (range 90–97 years) (Figure 1). Thirty-six patients were women and 16 were men. Altogether the 52 patients had a total of 72 tumors. Thirty-five patients (67.3%) had only one lesion, whereas 17 had two or more lesions.

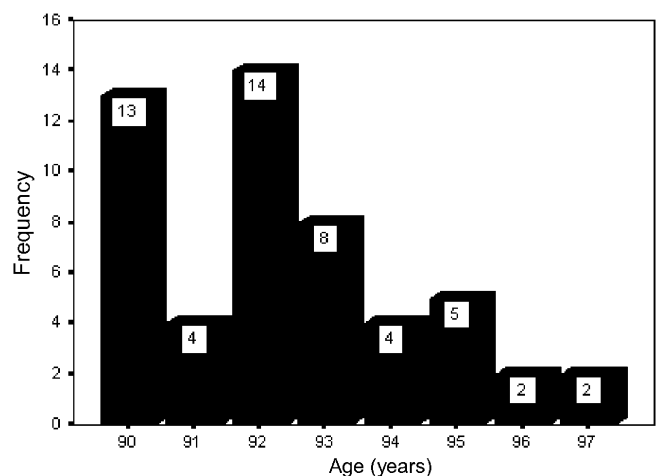


Figure 1. Distribution of age.

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The most frequent diagnosis was basal cell carcinoma with 36 tumors (50%) followed by 20 squamous cell carcinomas (27.8%) (Table 1). The proportion of basal cell carcinoma to squamous cell carcinoma was 1.8 (36/20).

In general the commonest site was on the cheeks with 18 tumors (25%), followed by the nose, temple, and forehead with 10 (13.9%) each (Table 2). The basal cell carcinomas were most frequently found on the nose, as in 9 (25%) of the 36 cases, whereas squamous cell carcinomas were more usually found on the cheeks, as in 8 (40%) of the 20 cases.

When sex is considered for these types of tumors, 56% of the basal cell carcinomas were seen in women and 44% in men. Nevertheless, 92% of the squamous cell carcinomas occurred in women, and only 7.1% in men.

Regarding preexisting medical disorders, the patients had an average of 1.5 disorders and only 15.4% (6) had no associated medical conditions. High blood pressure was the commonest associated disorder; it was found in 48.7% (19) of the patients (Table 3). The patients were taking an average of 2.3 regular medications. Antiaggregant or anticoagulant treatment was being used in 12.8% (5).

Table 1. Distribution of Tumors

Diagnosis	Number of Cases	Percentage
Basal cell carcinoma	36	50.0
Squamous cell carcinoma	20	27.8
Bowen's disease	4	5.6
Kaposi's sarcoma	1	1.4
Keratoacanthoma	1	1.4
Seborrheic keratosis	1	1.4

Table 2. Location of the Tumors

Site	Number of Cases	Percentage
Cheek	18	25.0
Nose	10	13.9
Temple	10	13.9
Forehead	10	13.9
Ear, pre- and postauricular	5	6.9
Lower limbs	5	6.9
Eyelids	4	5.6
Scalp	3	4.2
Upper limbs	3	4.2
Trunk	2	2.8
Lips	1	1.4
Neck	1	1.4
Total	72	100

Table 3. Comorbid Conditions

Comorbid Condition	Frequency (%)
High blood pressure	48.7
Neuropsychiatric	25.6
Cardiac disease	23.1
Endocrine disease	17.9
Pulmonary disease	10.3
Renal disease	2.6

The type of treatment given to the cutaneous tumors was distributed as follows: in 66.6% simple excision was done, 14% required a skin graft following excision of the tumor, 7% were shaved and electrocautery used, 7% had cryotherapy, 1.8% had radiotherapy, and in 3.5% the option was simple observation. We performed observation in 2 cases of 52 patients. One was a patient with classic Kaposi's sarcoma and the patient refused any treatment. The other one was a basal cell carcinoma located on the back and both patient and family refused any treatment.

With regard to the type of anesthesia used, 64.1% of the cases were treated using local anesthesia, 33.3% were treated using local anesthesia together with sedation, and only one case required general anesthesia.

Discussion

Dermatologists often attend very elderly patients with nonmelanoma skin cancer. The most important decision is as to what is the best management of these patients whose skin condition progresses slowly and is not usually fatal.³ In the past a commonly used option for the treatment of cutaneous tumors in the aged was simple observation. This was based on the assumption that these patients were poor candidates for surgery and would probably soon die from other comorbid conditions rather than from the tumor itself.⁴

Although the perioperative morbidity and mortality due to general anesthesia in elderly patients has been shown to be greater than in younger ones, skin surgery under local anesthesia is associated with low morbidity; however, careful assessment of the patient's clinical history and the surgical risks involved is essential, especially in very elderly patients.^{5,6}

Recently a study was performed to define the variables for prognosis of the survival of elderly patients after surgery for skin cancer using the Charlson index.⁷ This a method for classifying comorbid conditions that might alter the risk of mortality for use in longitudinal studies. It is a weighted index that takes into account the number and the seriousness of

comorbid diseases. This study concluded that although this variable may predict shorter survival when skin cancer is considered in a cohort of elderly patients, it remains difficult to predict the survival of individual patients accurately.³

To our knowledge the largest series of patients with surgical skin tumors who were aged 90 years or more included 115 and 99 patients seen over periods of 8 and 9 years.^{3,4} Our series includes 52 patients seen during a period of 3.5 years. In our group of patients basal cell carcinoma was the commonest diagnosis, as was also found by MacFarlane et al.⁴ We point out that our series did not include any patients with melanoma.

The basal cell carcinoma to squamous cell carcinoma ratio was 1.8, whereas MacFarlane et al.⁴ found 3.2. Taniguchi et al.⁸ found that 68% of their lesions were squamous cell carcinomas, whereas only 16% were basal cell carcinomas, with a basal cell carcinoma-to-squamous cell carcinoma ratio of 0.24, which is a different proportion. This difference may be due to Taniguchi et al. having studied Japanese patients because it is well-known that basal cell carcinoma is less common in Chinese, Japanese, and other Asian races.⁹

As in previous studies, basal cell carcinoma is usually found on the nose and rarely on the trunk or limbs where squamous cell carcinoma predominates.⁴ In our patients no squamous cell carcinomas were diagnosed on the nose.

Basal cell carcinomas were distributed in similar proportions in men and women, although 92.9% of the squamous cell carcinomas were found in women. This finding contradicts the common belief that squamous cell carcinoma occurs less frequently in women because they spend less time than men working in the sun.¹⁰ This difference may be due to the involuntary selection of a larger number of women than men owing to the longer life expectancy of women.

In our group of patients 84.6% had at least one preexisting medical disorder, with an average of 1.5 disorders per patient. It should be mentioned that in Seymour's study¹¹ persons over the age of 74 had an average of three comorbid conditions. This discrepancy may also be due to the involuntary selection of a relatively healthy group of persons who had outlived the average life expectancy.

Our study did not include patients with surgical skin tumors treated without prior histopathologic study. This may have affected our results, because

some patients treated by cryotherapy, electrocoagulation, or local chemotherapy without initial biopsy studies would not have been included.

The decision to perform skin surgery in an elderly person may be difficult to take, especially in cases of nonmelanoma skin cancer. Unfortunately, no data are available regarding the complications associated with the decision not to treat nonmelanoma skin cancer in patients aged 90 or over. In view of the limited life expectancy of these patients, in some exceptional cases, it would seem reasonable to use a strategy of simple observation. Nevertheless, this requires firm diagnosis of short life expectancy, because the decision not to treat may have serious consequences if the patients eventually live for longer than expected. In contrast, the patient and family opinion is really important in the management of these patients. We think that surgery can improve the quality of life of patients with nonmelanoma skin cancer aged 90 or over, because it is not aggressive, it is safe, and it is not really disturbing for the patient or the family.

Acknowledgment We acknowledge the help of the Department of Pathology of our hospital in this study.

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Commentary

The very elderly constitute one of the fastest growing age groups in the United States. According to the latest figures from

the US Census Bureau, there are currently an estimated 1.65 million people in the United States aged 90 years and older. This figure is predicted to increase to approximately 10.6 million by the year 2050, when the US population should total 420

million.¹ Given the increasing incidence of nonmelanoma skin cancers in the United States,² we will consequently be faced as dermatologic surgeons with an increasing number of very elderly patients presenting with skin cancers. What treatment options can we safely offer them?

As well as providing us with some biostatistical data on this little researched group, the authors of the current article discuss the importance of this decision and refer to additional research that attempted to define variables that could be prognostic for survival in elderly patients following skin surgery.³ Although the very elderly have in general been regarded as suboptimal surgical candidates, there are some data to indicate the contrary. In one study in the general surgery literature, survival rates of centenarians who had undergone surgery for procedures ranging from total hip replacement to cataract surgery were found to be comparable to matched controls who had not undergone surgery.⁴ In an earlier retrospective study of 115 Mohs surgery patients aged 90 years and above, only 1 patient had some slight chest pain during the procedure and surgery was resumed the following day.² Although there may always be the occasional very elderly patient with multiple comorbid medical

conditions whose skin cancer could be more easily handled with simple electrodesiccation and curettage, Mohs surgery does appear to be a safe and effective therapy for the great majority of very elderly patients.

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