

fixed, paraffin-embedded tumor tissues. Genomic DNA was isolated using proteinase K digestion and boiling method. Polymerase chain reaction (PCR) amplification of the TERT promoter region was performed using primers 5'-GCCGATTCGACCTCTC TCC-3' (forward) and 5'-CAGCGCTGCCTGAAA CTC-3' (reverse). PCR products were used as templates for sequencing with BigDye Terminator v3.1 Cycle Sequencing kit on a Genetic Analyzer 3030 xL platform.

The median age at diagnosis was 79.7 years (range 43-96 years) with female predominance (F:M = 8:7). Thirteen patients were Caucasian and two were unspecified. The head and neck area (n = 10) was the most common location, followed by trunk (n = 3) and extremities (n = 2). TERT promoter mutations were identified in 1 case (7%), located on the right jaw. The mutations exhibited UV signatures at chromosome 5 C258T and C260T, which are locations that have not been reported before (Fig 1).

TERT promoter mutations were found in 43% of melanomas,¹ 50% of squamous cell carcinomas,^{2,3} 56% to 78% of basal cell carcinomas,^{2,3} 93% of atypical fibroxanthomas,⁴ and 76% of pleomorphic dermal sarcomas.⁴ In this study, the incidence of TERT promoter mutations in MCC was much lower than in other tumors. Although the limitation of this study includes a small sample size, low incidence of TERT promoter mutations in the present study is similar to the findings in the recent study.⁵ Xie et al found TERT mRNA expression and telomerase activity were prevalent in MCC.⁵ However, TERT promoter mutations were identified in only 1 in 6 cell lines and 4 of 35 MCCs (11.4%).⁵ Similar to our result, all mutations had UV signature, and tumors occurred in sun-exposed areas.⁵ Low frequency of TERT promoter mutations would suggest that UV radiation could play minor roles in the pathogenesis of MCC.

In conclusion, we identified TERT promoter mutations to be infrequent in MCC, a unique finding compared with other skin cancers on sun-exposed areas. Further understanding of the pathogenesis of MCC would facilitate the development of novel therapeutic options for this aggressive tumor.

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Evaluation of patient satisfaction with second intention healing versus primary surgical closure

To the Editor: Second intention healing (SIH) refers to wounds allowed to heal without surgical closure. We attempted to evaluate patient satisfaction with surgical closure versus SIH in Mohs micrographic surgery (MMS) subjects. Records of patients undergoing MMS at Massachusetts General Hospital from September 2005 to September 2008 were reviewed. Inclusion criteria was treatment of a head-neck nonmelanoma skin cancer (NMSC). Randomly chosen subjects were asked to complete a survey (Supplemental Table I; available at <http://www.jaad.org>) recalling their satisfaction with their closure during the immediate healing phase and then after healing was complete. The time period from complete healing to participation in the study ranged from 6 months to 2 years. Data were collected on age, gender, tumor location, initial tumor size, postoperative wound size, type of closure, and complications. The χ^2 , Wilcoxon rank-sum, and Kruskal-Wallis tests were used for analysis (SAS v9.1.3).

A total of 1250 subjects were contacted, with a 58% response rate (n = 728, 61% male, mean age 68 ± 13 years, Table I). The mean age was used to divide subjects into 2 groups for age-related comparisons. The mean postoperative wound size was 1.5 ± 1.4 cm² (range 0.2 to 10.2 cm²). The majority (78%) of postoperative wounds were less than 2 cm².

Table I. Subject demographics

Gender	Number (%)
Men	428 (61.1)
Women	300 (38.9)
Age of participants	Mean age, years (SD) [range]
Overall	68.1 (12.9) [27-94]
Primary surgical closure	65.0 (13.1) [27-94]
Second intention healing	69.7 (12.3) [31-94]

SD, Standard deviation.

Table II. Comparison of mean outcome totals both during healing phase and after healing phase by closure type

Closure type	N	Mean satisfaction	P value
During healing			.4
Primary	388	0.24	
Second intention healing	332	0.22	
After healing			.1
Primary	378	0.11	
Second intention healing	331	0.16	

During the early postoperative healing phase, 77.1% of subjects noted optimal outcomes, with either excellent or very good satisfaction scores. Closure type (primary vs SIH) did not impact patient satisfaction scores during healing or after healing had been completed (Table II).

One hundred sixty-six participants (22.9%) reported at least 1 suboptimal satisfaction score during the immediate postoperative healing period, divided evenly between difficulty performing dressing changes and embarrassment with the appearance of the wound during healing.

Forty-six participants (6.4%) reported some level of dissatisfaction with their scar after healing was complete. Of those, 18 (39%) were wounds that had healed by SIH and 28 (61%) were wounds that were closed primarily ($P > .05$).

While several studies have documented the improvement in quality of life associated with the treatment of skin tumors and the modalities used for accomplishing that improvement, there are few data on the impact of the closure type of the surgical defect on the patient's immediate postoperative and long-term satisfaction.^{1,2}

This large retrospective study demonstrates that the vast majority of patients with wounds allowed to heal by SIH had a high level of satisfaction, equivalent to those who underwent surgical closure. Only 1 factor, age younger than 68 years, was associated with decreased long-term patient satisfaction in both groups. This age group showed

a slightly lower satisfaction with surgical outcome, regardless of any other factor, including closure type, gender, and tumor location. This finding is consistent with prior studies that have demonstrated that older patients are generally more satisfied with their care than younger patients.³⁻⁵

In the appropriate patient, satisfaction with SIH is comparable to primary closure. While surgical closure can hasten the time to healing, it can increase the cost of MMS. The results of this study should extend the range of closure techniques discussed with patients following MMS treatment of NMSC.

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