Issue sampling for diagnosis of suspected basal cell carcinoma (BCC) is typically performed using a shave biopsy technique or punch biopsy. To date, a variety of methods have been employed for the treatment of BCC depending on the type, size, site of BCC, age of the patient, comorbidities of the patient, and patient’s and surgeon’s preference. Standard surgical excision or Mohs’ micrographic surgery provides an immediate pathologic inventory and an index of adequacy of excision. Mohs’ technique offers the lowest recurrence rate due to minimization of false-negative histologic findings. The other advantage of Mohs’ micrographic surgery is the potential for significant tissue conservation especially in anatomically critical regions. Because of its cost and limited availability, a routine use of this technique in each BCC patient seems irrational.

At present, most plastic surgeons opt to excise skin neoplasms followed by immediate frozen section analysis for margin control before reconstruction. Retrospective outcomes analysis of 127
patients with shave biopsy-proven and incompletely excised head and neck region BCC treated in our department between 2006 and 2012 showed no evidence of residual BCC in 19 patients during or after excision (mean age in residual BCC group: 57 y, mean age in nonresidual BCC group: 59 y; 85% of all BCCs = <1 cm, 15% = 1–2 cm; initial BCC size in residual group < 1 cm: 66% vs initial BCC size in nonresidual BCC group < 1 cm: 74%, \( P = 0.55 \)). Seven of 19 patients with no residual tumor received excision and primary closure. Eleven patients underwent flap reconstruction while only one patient required skin grafting. Our realization of no residual BCC findings after excision in some patients with biopsy-proven BCC diagnosed through a shave biopsy prompted us to report this occurrence along with a sample case and discuss plausible reasons for nonpersistence. We also aimed to promote awareness on this matter and its potential clinical and medicolegal implications.

**OPERATIVE TECHNIQUE**

Standard excision with recommended surgical margins (3–5 mm) was carried out in all patients. The margins were appropriately oriented to the main specimen using ink and stitches so that if residual tumor was identified, specific regions could be excised. In addition, the pathologist was allowed to personally review the main surgical specimen and its associated defect in vivo or using a digital photograph before processing the margins so that there was complete agreement with regard to orientation and mapping. The specimens were evaluated by an experienced pathologist for residual tumor and margin involvement. Closure of the wound after excision was performed after ensuring clearance of peripheral and deep margins.

**PATIENT**

This was a 63-year-old male patient who had been initially evaluated in the plastic surgery outpatient clinic as a referral from the dermatology clinic for evaluation of shave biopsy-proven micronodular BCCs located in the nasal tip and the left cheek. He underwent excision of the previous biopsy sites/scar with appropriate margins. The time between the initial biopsies and surgery was 58 days. The resultant defect after excision of the nasal lesion and cheek lesion measured 1.5 cm in diameter and 1.7 cm × 1.5 cm, respectively. Frozen section analysis showed no residual tumor in these specimens. We achieved primary closure of the cheek wound. The nasal defect was reconstructed using rotation-advancement dorsonasal flap with V-Y closure (Figs. 1–4). The final pathology report showed dermal scar with chronic inflammation and was negative for residual malignancy, confirming the findings of frozen section analysis. His early and late postoperative course was uneventful. There was no evidence of recurrence in the 2-year follow-up period.

**DISCUSSION**

We noted that 19 patients with BCC initially diagnosed using shave biopsy technique had no residual
BCC at the time of surgery. We were not able to identify any clinically significant predictors of residual vs no residual BCC after accounting for patient differences using a multivariable logistic regression model. The duration between initial biopsy and definitive surgery, initial BCC size, site, and subtype were not found to be associated with the persistence or disappearance of BCC.

Few previous studies have shown negative residual BCC in surgical specimens which were initially diagnosed as BCC. Alcalay et al demonstrated nonpersistence of tumor in 25% of patients after preoperative biopsy for diagnosis of skin cancer of the face despite pathological diagnosis of incompletely excised tumor. In another study, there was disappearance of primary nodular BCC in 22% of 51 patients studied following preoperative shave biopsy performed during Mohs’ surgery.

It has been shown in a few studies that the conventional excision and the frozen section approach can be just as effective in detecting residual tumor foci. Therefore, we primarily relied on the findings during frozen section analysis of the specimens. However, it should be noted that a potential pathologist/investigator error in studying the specimens cannot be totally eliminated and false nonpersistence continues to be a risk. The finding of nonpersistent or negative residual BCC during initial frozen section analysis was verified by the final pathology reports. Finally, this finding was supported by the follow-up of 19 patients including the presented case (mean follow-up: 20 mo), which showed no evidence of suspicious BCC or recurrence.

Another reason for nonpersistence may be associated with wrong-site surgery, which may lead to false nonpersistence. In our patient population, this potential risk was eliminated with a long-standing established good rapport with dermatologist at our institution regarding site of shave biopsy. Therefore, we believe that the finding of no residual BCC in the 19 patients reflects true nonpersistence.

The nonexistence of BCC after preoperative biopsy is of special significance from several points of view. According to the results of our analysis, some patients with previously diagnosed BCC had no-show of the tumor. Yet, they underwent reexcision and reconstructive procedures for lesions with no evidence of malignancy. Overall, our goal in treating BCCs was complete tumor ablation. “Wait and see” approach was not a legitimate clinical option.

However, the finding of no residual tumor based on the current analysis may change our practice habits. Watchful waiting may be an option, particularly in the elderly and fragile patients. In addition, with the information obtained in this report, one may adopt a strategy to utilize smaller safety margins when treating patients with shave biopsy-proven BCC. This may also decrease legal issues involving fair cosmetic results after a big reconstruction for no tumor.

Finally, we would like to promote greater awareness among plastic surgeons treating BCCs with respect to medicolegal issues and potential lawsuits. It seems mandatory to discuss the possibility of negative malignancy and still the need for reconstructive surgery in the preoperative evaluation of patients with shave biopsy-proven BCC. And, also it is imperative that these discussions are included in the informed consent when treating patients with BCC.
SUMMARY

Our analysis of 127 head and neck region BCCs showed that there was no evidence of residual BCC in 15% of patients, one of which is presented in this report. These patients received some type of reconstructive surgery after excision of lesions with negative tumor. Thus, there is a chance that any reexcision after a shave biopsy which is positive for BCC may be negative for tumor. This finding substantiates our realization that sometimes what some would call unnecessary surgery is a common reality. The surgeon’s goal is tumor eradication, and therefore, watchful waiting is usually not a legitimate clinical implication. This report has value in letting our esteemed legal colleagues know what we do not know, which still remains within the standard of appropriate care. However, the finding of no residual tumor in the current report may change our practice habits. Watchful waiting may be an option, particularly in the elderly and fragile patients. Also, one may opt to decrease the safety margins during excision when treating patients with biopsy-proven BCC. However, reconstructive procedures may still be required in the case of nonpersistent tumor. Therefore, it is extremely important that the informed consent should include statements regarding possible reconstructive procedures to avoid medicolegal implications.

PATIENT CONSENT

The patient provided written consent for the use of his image.

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