Super Giant Squamous Cell Carcinomas

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Squamous cell carcinomas (SCCs) larger than 2 cm in diameter are associated with a greater risk for disfigurement, local recurrence, and metastasis. Giant SCCs are rare. They may develop near aesthetically and functionally important structures and infiltrate them. Treatment may be difficult with the need for large tissue resections and complex surgical reconstruction, with important repercussions on the quality of life of patients. We report 2 cases of super giant SCCs with long-standing evolution that were successfully treated with surgical excision and followed for 24 months posttreatment without signs of local recurrence and/or metastasis.

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Squamous cell carcinoma (SCC) is the second most common skin malignancy.[1] When lesions are larger than 2 cm in diameter, SCCs can be associated with a greater risk for disfigurement, local recurrence, and metastasis.[2] There are few reported cases of SCCs larger than 5 cm in diameter.[3-11] Larger SCCs can be infiltrative and destructive,[10] thereby posing a challenge to surgeons.[11-13] For effective treatment, it may be necessary to remove affected aesthetic and/or functional structures, which can cause major defects that require complex surgical reconstruction.[12,13]

We report 2 cases of super giant SCCs with long-standing evolution that were successfully treated with surgical removal. Both patients were followed for 24 months posttreatment without signs of local recurrence and/or metastasis.

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The authors report no conflict of interest.

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Case Reports

Patient 1—A 50-year-old woman was referred for evaluation of a mass on her back that had been increasing in size over the last 5 years. Physical examination revealed a 35×30-cm solid nodular mass on the right lower back that was attached to deep anatomic planes (Figure 1). Staging showed no lymph node involvement or metastasis. The lesion was surgically removed with lateral margins of 2.5 cm. On excision, infiltration of the lumbar musculature was observed. All compromised structures were removed. The resulting defect was repaired with the placement of polypropylene mesh in the area of muscle resection (Figure 2), closure of the remaining edges of the muscular fascia on the mesh, and a partial-thickness graft. Histopathology showed findings that were consistent with well-differentiated SCC without perineural invasion and with clear surgical margins. Two-year follow-up revealed no signs of local recurrence and/or metastasis.

Patient 2—A 42-year-old man presented with a mass in the right axillary region that had been increasing in size over the last 2 years. Physical examination revealed a nodular mass that was 20 cm in diameter and was attached to deep anatomic planes (Figure 3). Staging showed no lymph node involvement or metastasis. The lesion was surgically removed with lateral margins of 2.5 cm. On excision, infiltration of the local muscles (ie, pectoralis major, pectoralis minor, trapezius) was observed. By contiguity, the mass had invaded the axillary lymph node chain. The entire mass was removed, resulting in a large defect that was repaired with myocutaneous flap rotation of the latissimus dorsi (Figure 4). Histopathology showed findings that were consistent with well-differentiated SCC without perineural invasion and with clear surgical margins. Two-year follow-up revealed no signs of local recurrence and/or metastasis.

Comment

Squamous cell carcinoma accounts for approximately 20% of cutaneous malignancies[14] and occurs predominantly in elderly fair-skinned men.[15] Chronic sun exposure is the major etiologic factor for the development of cutaneous SCC,[16] and actinic keratosis and Bowen disease (SCC in situ) are considered to be precursor lesions.[15,16] Squamous cell carcinomas are characterized

Figure 1. A 35×30-cm solid nodular mass on the right lower back that was exophytic and infiltrative with discrete hyperkeratosis and adherence to deep anatomic planes.

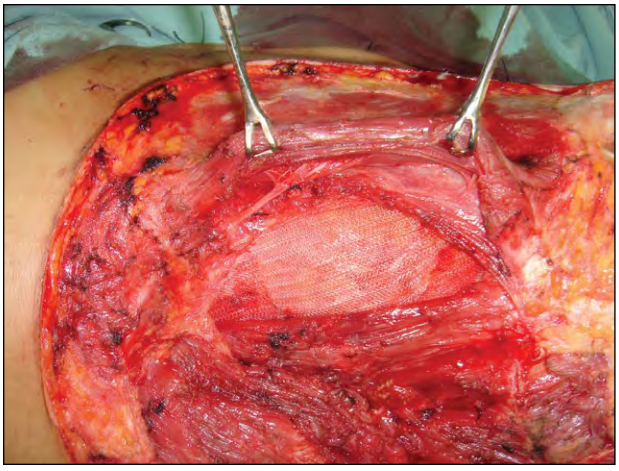

Figure 2. After excision of the tumoral lesion, an open surgical wound in the right lumbar region was repaired with the placement of polypropylene mesh in the subfascial plane.

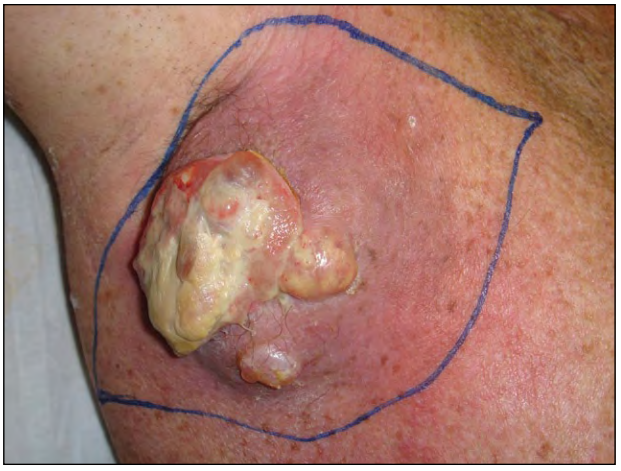

Figure 3. A solid nodular mass measuring 20 cm in diameter presented in the right axillary region. The tumor was exophytic and infiltrative with an area of central ulceration and irregular and inaccurate limits that adhered to deep anatomic planes.

Figure 4. After excision of the tumoral lesion, an open surgical wound in the right axillary region with exposure of vital structures (ie, arteries, blood vessels, brachial plexus) needed to be repaired.

by papules, plaques, or erythematous and keratotic nodules.[1] Lesions that are more than 2 cm in diameter (large SCCs) carry twice the risk for recurrence and 3 times the risk for metastasis.[14] The 5-year cure rate for large SCCs (70%) is much lower than smaller lesions (98.4%). Lesions that are 4 cm or more in diameter are strongly associated with mortality.[14]

Large SCCs present in patients without a family history of skin cancer and develop from chronic lesions located in areas that are difficult for patients to see; for example, 66.7% of cases occur on the back.[2] Giant lesions are associated with lower socioeconomic status and infrequent physician visits.[17] Giant SCCs larger than 5 cm in diameter are rare; there is no guideline on the size of an SCC that is considered giant.[3-11] The nomenclature adopted in this report—super giant—is derived from a report that defined super giant basal cell carcinomas as tumors greater than 20 cm in diameter.[18] There have been reports of SCCs with proportions similar to our patients,[1,6,11] and the tumor size is an important prognostic factor.[15]

The delay between onset of injury and treatment substantially increases the likelihood that the SCC will

increase in size beyond 2 cm in diameter. Early detection and treatment of SCCs can have a positive impact on morbidity and mortality rates as well as costs.[2,18] Cutaneous SCCs are diagnosed via clinical evaluation[1,16] and confirmed by anatomopathologic examination.[16] Other than a diameter greater than 2 cm, factors that indicate a poor prognosis for SCCs include location in periorificial zones; occurrence in injury sites (ie, burn scars, chronic ulcers, areas of radiodermatitis); adherence to ceiling level; mucoepidermoid, acantholytic, and desmoplastic histologic subtypes; perineural invasion; poorly differentiated or undifferentiated tumors; and Clark level IV or V.[15,16] The presence of at least one of these criteria implies an increased risk for recurrence and/or metastasis.[15] Immunosuppression, inadequately excised lesions, recurrent lesions, and lymph node involvement or metastasis also are determinants of poor prognosis.[15,16]

Surgical excision with safety margins is the preferred treatment in most cases of SCC,[15] including larger lesions.[11-13] For SCCs greater than 2 cm, the lateral surgical margins of resection must be greater than 6 mm. The deep margin should involve the hypodermis, respecting fascia, periosteum, and perichondrium because these structures are not in direct contact with or invaded by the tumor.[15] In tumors that affect large areas, larger margins are recommended.[12,19]

Appropriate reconstruction methods should be based on the location and size of the defect created after tumor excision.[19] In our patients, placement of synthetic mesh followed by a skin graft (patient 1) and myocutaneous flap rotation of the latissimus dorsi (patient 2) were satisfactory options for reconstruction. The proper surgical treatment of larger SCCs can provide long-term survival or even cure the disease,[11,12] as demonstrated in both of our patients. It is recommended that cases of SCC with the worst prognoses are followed up for 5 years.[15] Special attention should be given to preventive measures and early detection of skin cancers,[2,5,16] thus avoiding cases with large dimensions such as the cases reported here.

Conclusion

Squamous cell carcinomas that reach large dimensions require extensive surgical resections that may cause aesthetic and functional sequelae. When properly treated, they result in good aesthetic and functional outcomes with long-term survival.

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