5-2020

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History

- A 65-year old African American male with a past medical history of untreated prostate cancer and anal cancer status post chemoradiation presented to dermatology due to a nonhealing wound on the lateral right hip.
- The patient had previously undergone excision of a cutaneous squamous cell carcinoma (cSCC) in this area, followed by Mohs surgery due to local recurrence.
- In both procedures, clear margins were noted histologically.
- The patient noted that although the area had healed partially, the center had not healed and he had begun to develop a painful rash with blisters surrounding the wound

Examination

- On the right hip there was a large non-healing wound with granulation tissue and yellow fibrinous adherent material.
- The posterior edge of the wound had grouped greyish papules and fluctuant vesicles with serosanguinous drainage.
- On subsequent visits the lesions were rapidly progressive.

Histopathology

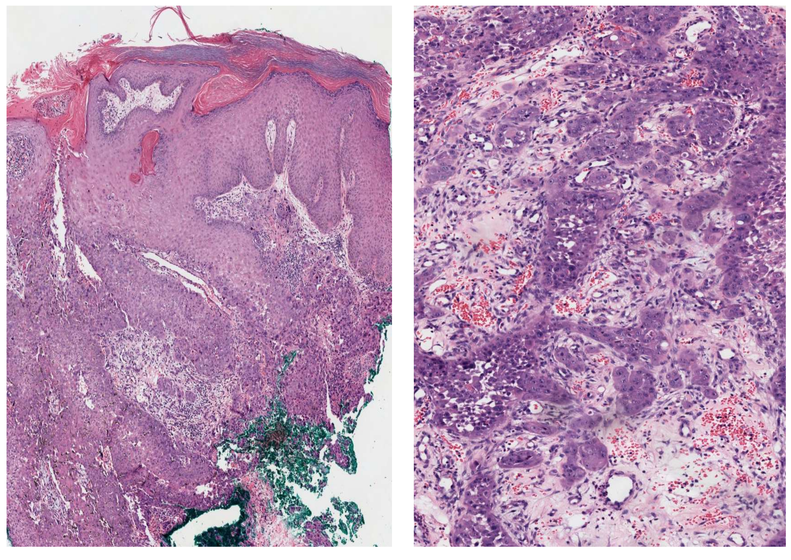

Figure 1: Punch biopsy of the right hip shows epidermal hyperplasia and ulceration with atypical squamous islands invading into the dermis.

Clinical Photos

Figure 2: cSCC of the right hip prior to Mohs surgery.

Figure 3: Rapidly spreading grey papules and vesicles on the right hip with central nonhealing surgical site.

Course and Therapy

- Due to the vesicular and rapidly spreading nature of the lesion, an infectious process was favored. However, there was no improvement after treatment with antibiotics and antivirals.
- At follow up, progression was noted. The differential at that time included recurrent SCC versus pyoderma gangrenosum versus infection.
- Biopsies for H&E and for tissue culture (aerobes, anaerobes, atypical mycobacterium, and fungi) were performed.
- There was no growth of any organisms on tissue culture.
- H&E showed features consistent with moderately differentiated SCC with high grade features.
- After discussion at tumor board, the patient was referred to radiation oncology, surgical oncology, and medical oncology for further management.
- The patient refused palliative radiation, but cemiplimab, a PD-1 inhibitor, is being initiated.

Discussion

- Cutaneous SCC is the second most common type of skin cancer with excellent outcomes after surgical removal in most cases.
- Local recurrence is rare, occurring in about 4.6% of tumors, but is a sign of aggressive biologic behavior.
- **Clinical risk factors for recurrence/metastasis include:**
  - –Tumor diameter >2 cm
  - –Immunosuppressed state
  - –Location on the lip or ear
  - –Arising in a burn or scar
- **Histological risk factors for recurrence/metastasis on pathology include:**
  - –Perineural invasion
  - –Tumor depth with Breslow thickness >2 mm (10x risk)
  - –Poor differentiation (3x risk of well-differentiated)
  - –Desmoplastic SCC subtype (10x risk of recurrence)
- In cases that recurrence of squamous cell carcinoma is a possibility, the threshold for biopsy is low even if the clinical course is not congruent.
- A multidisciplinary approach is critical in the management of these patients to reduce morbidity and mortality.
- **Systemic therapies for advance SCC include:**
  - –Chemotherapy (primarily platins)
  - –EGFR inhibitors
  - –PD-1 inhibitors (cemiplimab, nivolumab, and pembrolizumab)
- Radiation continues to play a pivotal role in both curative and palliative treatment.

References

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