

PERINEURAL SCLEROSIS IN INVASIVE SQUAMOUS CELL CARCINOMA

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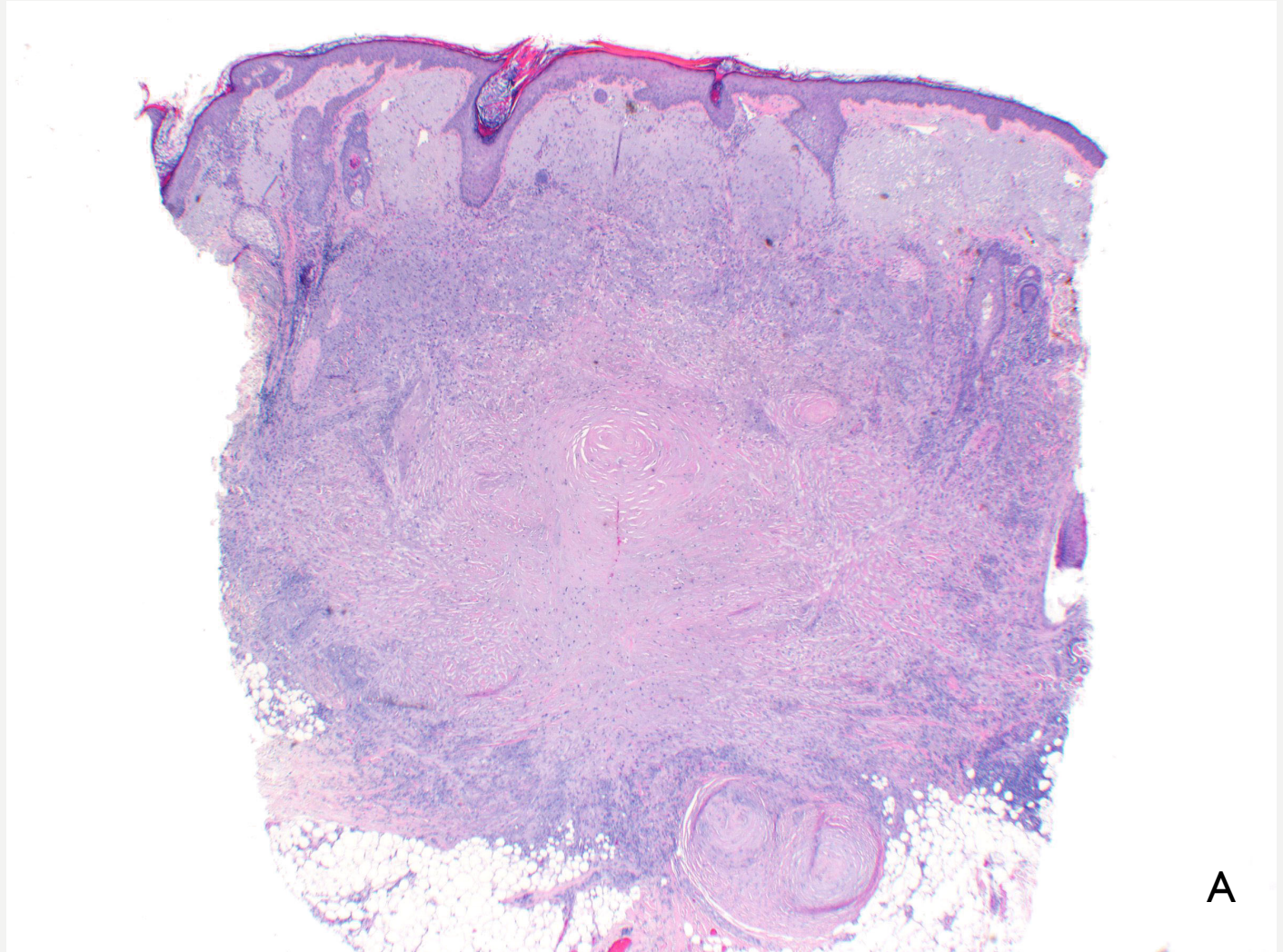
CASE PRESENTATION

- 77-year-old Caucasian male
- Presented for evaluation of multiple firm, indurated dermal papules coalescing into a 3.5 x 2.3cm flesh-colored plaque of his left preauricular cheek
 - present for seven to eight months with no discernible surface changes or keratosis
 - asymptomatic
- Patient reported numbness/tingling of the left ear lobule
- Manual head and neck lymph node examination was negative



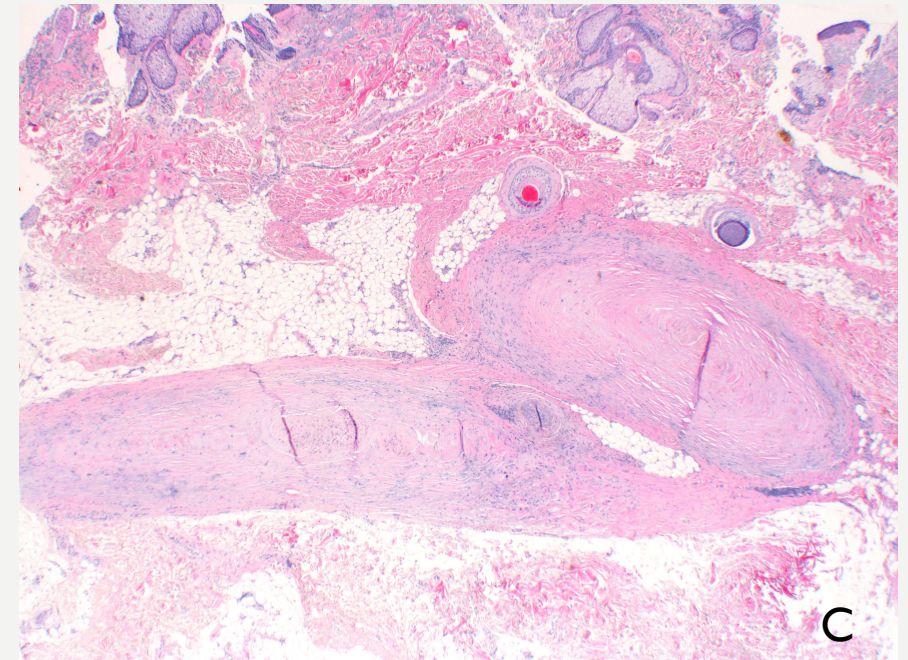
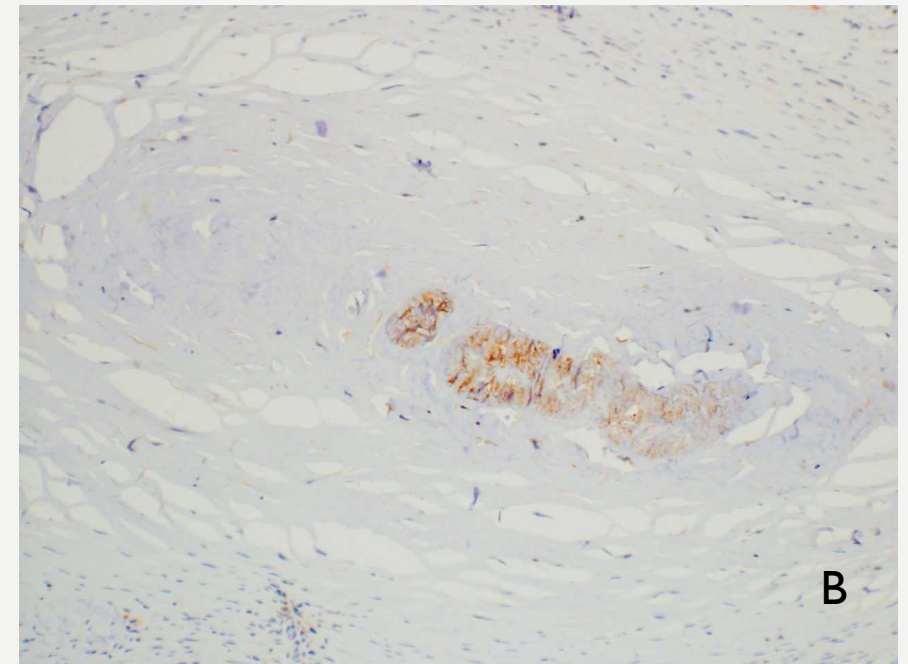
HISTOPATHOLOGY

- Revealed a dermal neoplasm composed of atypical spindled cells surrounding central hyaline and radial sclerosis (A) consistent with a sclerosing squamous cell carcinoma (SCC)



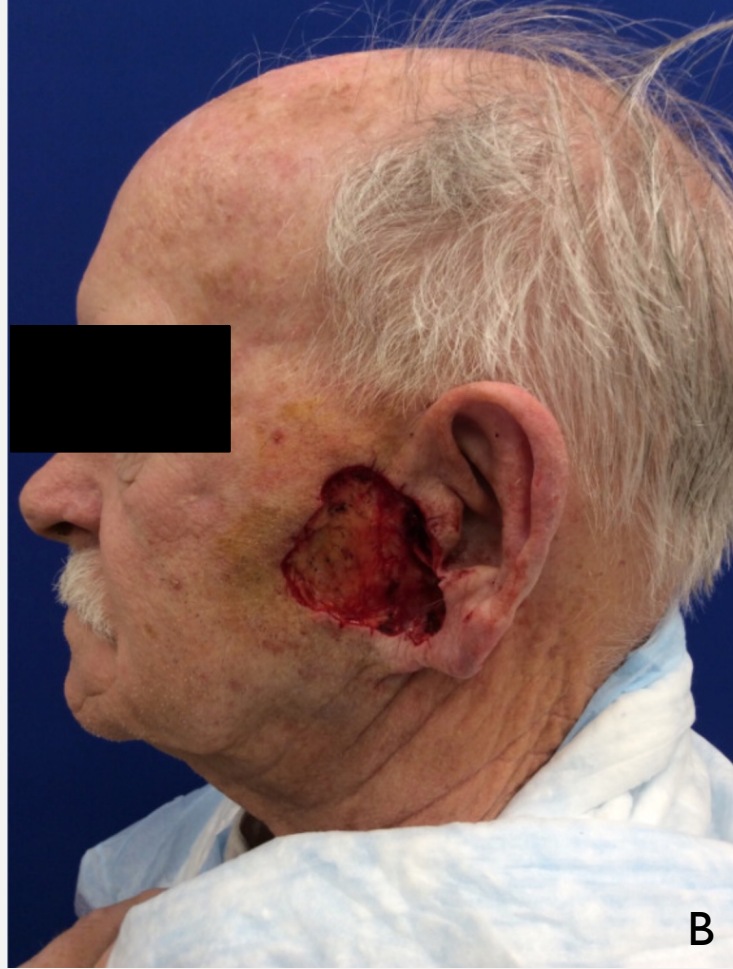
HISTOPATHOLOGY

- Cells were positive for p63 and an S100 immunohistochemical stain (B) demonstrated faint positivity centrally within areas of sclerosis consistent with obliterated cutaneous nerves
- Perineural invasion was discovered during Mohs surgery (C)



MANAGEMENT

- The patient underwent Mohs micrographic surgery for definitive treatment of the lesion and optimal margin control.
 - Required five stages, with four stages showing evidence of perineural invasion of nerves > 0.1 mm in diameter
 - Staged as T2b cutaneous SCC (Brigham and Women's Hospital Tumor Staging)
- Referred to radiation oncology for adjuvant radiotherapy to the site to reduce the risk of local recurrence
 - Monitored clinically for recurrence on an ongoing basis



CASE PEARLS

- High risk features of SCC include:
 - Invasion deep to the subcutis
 - High risk locations (such as ear or lip)
 - Size greater than 2cm
 - Poor differentiation
 - Host immunosuppression
 - Perineural invasion

CASE PEARLS

- Sclerosing SCC is rare – approximately 7.4% of SCCs
 - 27.3% risk of recurrence, and a 22.7% risk of metastasis
 - Characterized by infiltrative cellular nests, cords, or individual cells, along with a collagenized stroma on histopathology
 - Malignant cells can be sparse in the dense stroma, which can complicate the histopathologic picture and marginal analysis during Mohs micrographic surgery
 - The presence of marked sclerosis with relatively few atypical cells has the potential for misinterpretation as a benign sclerosing neoplasm, such as sclerotic dermatofibroma and sclerosing perineurioma.
 - Increased awareness of this aggressive feature, coupled with careful clinical correlation, can prevent misdiagnosis and future morbidity

QUESTIONS - [HTTPS://FORMS.GLE/GNASMXRUSXXHNJRT6](https://forms.gle/GNASMXRUSXXHNJRT6)

- 1) What are the high risk features of cutaneous squamous cell carcinoma?
- 2) What are the histopathologic features of sclerosing squamous cell carcinoma?