Epidemiology

- It is estimated that there are between 900,000 and 1,200,000 new skin cancers each year in the United States.
- 80% are BCCs & 20% are SCCs.
- Commonly affects men > 60 years
- Incidence: 1 per 1000 individuals (250,000 new case per year) in U.S.
- between 1300 and 2300 people die each year as a result of nonmelanoma skin cancer, mostly metastatic SCC.
- It has been estimated that a Caucasian male born in l994 has a 9% to 14% chance of developing an SCC within his lifetime. The estimates for white women range from 4% to 9%.
- Fair-skinned phenotype, excessive cumulative overexposure to UV radiation, advancing age, outdoor vocation, or avocation, and sunbelt latitudes.
- The highest risk factors are the presence of Actinic Keratosis or a previous nonmelanoma skin cancer
- Immunosuppressed patients and patients receiving long-term photochemotherapy (PUVA) are especially predisposed to the development of SCCs.
- Countries or Cities near the equator are of higher frequency of developing SCCs.
- High-risk SCCs for metastases and death are those that grow rapidly, become larger than 2 cm, invade deeply and reach a thickness of at least 6 mm, have been treated previously, or are located in high-risk areas such as the vermilion lip, the ear, and the columella of the nose. Patients who are immunocompromised are more predisposed to the development of metastases.

Histopathology

- Carcinoma that infiltrates dermis
- An associated precursor lesion (actinic keratosis / keratinocytic dysplasia / in situ squamous cell carcinoma) is often present, but may not be detectable due to ulceration
- Spectrum of histologic features, which has led to descriptions of various “types” of SCC; all share downward growth below level of adjacent or overlying epidermis
- Typical SCC has nests of squamous epithelial cells arising from the epidermis and extending into the dermis.
- The malignant cells are often large with abundant eosinophilic cytoplasm and a large, often vesicular, nucleus.
- Variable keratinisation (keratin pearls)

Typically SCC is graded as:

- Well differentiated (figures 3, 4)
- Moderately differentiated (figures 5, 6)
- Poorly differentiated (figures 7, 8)

Variants

- Spindle cell SCC
- Clear cell SCC
- Desmoplastic SCC
- Verrucous carcinoma
- Follicular SCC
- Keratoacanthoma-like SCC

- Acantholytic SCC
- Pseudovascular SCC
- Adenosquamous carcinoma
- Metaplastic SCC
- Inflammatory SCC
- Basaloid SCC
- Infiltrative SCC
- Pigmented SCC
- Pseudohyperplastic SCC

Positive stains

Immunopositive for various keratins: 34betaE12, AE1/AE3, MNF116, CK5/6

References

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