Squamous cell carcinoma

Squamous-cell carcinoma or squamous-cell cancer (SCC or SqCC) is a cancer of a kind of epithelial cell, the squamous cell. These cells are the main part of the epidermis of the skin, and this cancer is one of the major forms of skin cancer. However, squamous cells also occur in the lining of the digestive tract, lungs, and other areas of the body, and SCC occurs as a form of cancer in diverse tissues, including the lips, mouth, esophagus, urinary bladder, prostate, lung, vagina, and cervix, among others. Despite sharing the name squamous-cell carcinoma, the SCCs of different body sites can show tremendous differences in their presenting symptoms, natural history, prognosis, and response to treatment.

SCC is a histologically distinct form of cancer. It arises from the uncontrolled multiplication of cells of epithelium, or cells showing particular cytological or tissue architectural characteristics of squamous-cell differentiation, such as the presence of keratin, tonofilament bundles, or desmosomes, structures involved in cell-to-cell adhesion.

SCC is still sometimes referred to as “epidermoid carcinoma” and “squamous-cell epithelioma”, though the use of these terms has decreased.

SCC typically initially occurs in the sixth decade of life (the 50s), but is most common in the eighth decade (the 70s). It is twice as prevalent in men as in women. People with darker skin have a lower risk of developing SCC than individuals with lighter colored skin. Populations with fair skin, light hair, and blue/green/grey eyes are at highest risk of developing the disease. Frequent exposure to direct, strong sunlight without adequate topical protection also increases risk.

Malignant transformation of epidermoid cyst

Malignant transformation of an epidermoid cyst (EC) to squamous-cell carcinoma is very rare.

MRI recurrence in combination with neurological decline should prompt surgery to exclude malignant transformation.

Case reports

2016

Solanki et al. describe the experience of such a case and contribute to the evolving series within the literature [1)]

2014

Vellutini et al. present the case of a 42-year-old woman presenting with left hemiparesis 18 months after performing partial resection of an epidermoid cyst of right middle and posterior fossa [2)].

2005

A 45-year-old man who presented with a short duration of a painful ophthalmoparesis. Initial magnetic resonance imaging revealed an extraaxial petroclival mass characteristic of an epidermoid cyst, with the exception of a contiguous contrast-enhancing lobule. A subtotal resection was performed with the histopathological diagnosis revealing malignant transformation of an epidermoid cyst. Despite aggressive postoperative adjuvant therapy, the patient developed leptomeningeal metastasis and died shortly thereafter. The presence of contrast enhancement at the site of an epidermoid cyst combined with an acute, progressive neurological deficit should alert the treating physician to the possibility of a malignant transformation. When transformation does occur, the clinical and radiological course is quite aggressive as compared with the indolent growth of epidermoid cysts. Treatment options include surgery with adjuvant chemotherapy or radiotherapy [3].

1)
Solanki SP, Maccormac O, Dow GR, Smith S. Malignant transformation of residual posterior fossa epidermoid cyst to squamous cell carcinoma. Br J Neurosurg. 2016 Jan 13:1-2. [Epub ahead of print] PubMed PMID: 26761183.
2)
Vellutini EA, de Oliveira MF, Ribeiro AP, Rotta JM. Malignant transformation of intracranial epidermoid cyst. Br J Neurosurg. 2014 Aug;28(4):507-9. doi: 10.3109/02688697.2013.869552. Epub 2013 Dec 18. Review. PubMed PMID: 24345076.
3)
Michael LM 2nd, Moss T, Madhu T, Coakham HB. Malignant transformation of posterior fossa epidermoid cyst. Br J Neurosurg. 2005 Dec;19(6):505-10. Review. PubMed PMID: 16574566.