

Case Study—Squamous Cell Carcinoma

History

The patient, an 83 year old male, was referred by plastic surgeons for consideration of radiotherapy on his nose. This referral took place following surgery for a Squamous Cell Carcinoma (SCC), after histological examination revealed that the surgical margin was not clear.

Post-operative radiotherapy was indicated to prevent tumour recurrence in the edge of the skin graft taken from the pre auricular area.

Pathology

An SCC is a malignant tumour which arises from squamous epithelial cells within the epidermis, they most commonly occur as a result of over exposure to UV radiation.

As SCC's arise from the deeper layers of the skin they can and do metastasise to other areas of the body. Surgery is commonly used to remove tumours however adjunct Radiotherapy can be used in cases where the surgical margin was difficult to define and to prevent disease recurrence.

Treatment

The grafted area was defined as the target volume (inner area defined with red dots) whilst the outer treatment volume was defined using an adequate margin around the grafts edge (defined by the outer blue dots).

Treatment was delayed for 2 months post surgery to allow the graft chance to take. The radiotherapy prescription was altered from 37.5 Gy in 5 daily fractions to prevent dehiscence of the graft.

Radiotherapy Prescription

40Gy in 10 daily fractions.

HVL - 3.39mm Al(100kV)

Field size - 3.5 x 3cm ellipse

Shielding - An external lead eye shield was used over the right eye to protect the ocular structures.



The patient was treated using an Xstrahl X-Ray Therapy System at Colchester Hospital University NHS Trust.