



## Case Study—Keloid Scar

### History

A 30 year old female referred by the plastic surgeons for radiotherapy to the posterior ear lobe following the development of a Keloid Scar, 3 years after an ear piercing. Previous piercings had not resulted in the formation of Keloid Scars.

### Pathology

A Keloid Scar is a progressively enlarging scar which occurs as a result of an excessive formation of collagen in the dermis during connective tissue repair. Keloid Scars generally grow irregularly and can be associated with progressive growth, stiffness, contraction, pruritus and hyperesthesia.

### Treatment

Plastic surgery was carried out to remove the Keloid Scar. The patient attended the following day for a single dose of radiotherapy to the scar, plus a small margin of 5mm. The pinna was taped forward to expose the effected posterior section of the lobe.

### Radiotherapy Prescription

8Gy in 1 fraction.

HVL - 5.05mm Al (120kV)

Field size - 3.5 x 1.5 cm ellipse

Shielding - A lead cut out was used to define the field size and protect the surrounding tissue.



*The patient was treated using a Gulmay Medical Xstrahl 300 at Essex County Hospital, part of the Colchester Hospital University NHS Trust.*