

ILROG Mini-Atlas: skin Location

49-year-old female known with cutaneous CD 30+ anaplastic large cell lymphoma presents with a cutaneous lesion of the left foot associated with pain and bleeding of 3 months duration

Previously she was treated to other sites of cutaneous involvement with lower radiation doses of 12 Gy or less

The photo shows the lesion prior to radiation therapy.



The total dose given was 600 cGy in 3 fractions.^{1,2}

Radiation was delivered using electron beam radiation with 12 MeV en-face electrons, 1 cm bolus prescribed to the 90 % isodose line.

The decision to use 12 MeV was based on the fact that the tumor extended 1.5 cm below the skin surface and was raised 1.3 cm above the surface, requiring treatment of a 2.8 cm tumor. 12 MeV electrons do not have full dose at the skin and 1 cm bolus optimizes the coverage. 12 MeV electrons have a post-max 90% dose at 4 cm which will permit coverage of the tumor with 1 cm of bolus.



Please note that this is a clinical set up and a case by case clinical judgment should be practiced in relation to the technique and dose used.

¹Smith et al, Advances in Radiation Oncology (2017) 2, 363–369

²Million et al: IJROBP. 2016 Aug 1;95(5):1454-1459

On day 3 of RT, there was evidence of disease response.



4 weeks later the tumor has regressed.



15-year-old male with cutaneous marginal zone lymphoma of the skin located in the right temporal area.

The lesion was treated with clinical (non CT-planning) electron beam therapy with 9 MeV en-face electrons with 1 cm bolus to be applied during treatment.

The dose chosen is based on published data on the ability of 400 cGy to achieve a long term remission in these cases.^{1,2,3}



¹Akhtari et al: Leuk Lymphoma. 2016;57(1):34-8

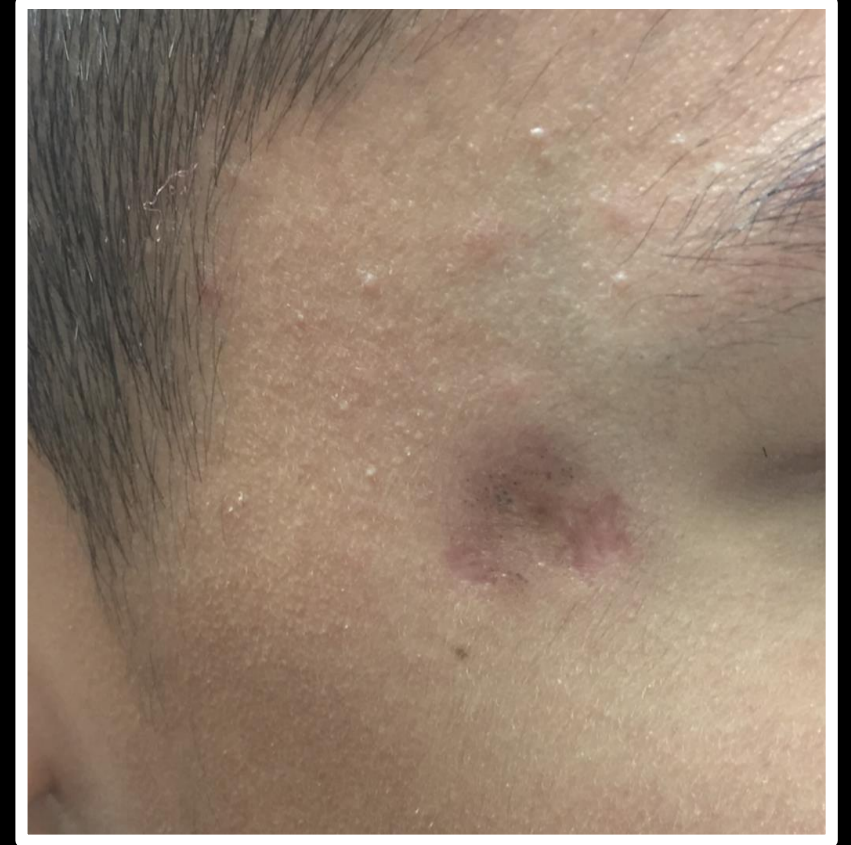
²Dabaja B: Oncol Res Treat. 2017;40(5):255-260.

³Specht et al: IJROBP 2015 May 1;92(1):32-9.

6 days after delivering 400 cGy in 2 fractions showing the early and quick response.



4 weeks post RT he achieved clinical complete remission



Take home message:

Indolent cutaneous B-cell and T-cell lymphoma often respond to low doses of radiation therapy with durable remissions, even in cases of aggressive clinical presentation.