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<tr><th>Study</th><th>Design</th><th>Intervention</th><th>Results</th><th>Validity/ Conclusions</th></tr>
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<td>Bhatnagar 2013.

Study type:
Case series.

Aim:
To report late treatment effects of HDR EBT using surface applicators for the treatment of NMSC at one year or more of follow-up.

Primary outcome:
Safety, cosmetic results, and short-and long-term efficacy.
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N of patients:
N=122 patients with 171 lesions were treated. Follow-up data for ≥ 1 years were available for 42 patients with 46 lesions.

Follow-up:
Median 10 months (range 1-28 months).</td>
<td>Inclusion criteria:
The study included all patients treated with EBT for NMSC at one center in Arizona from July 2009 to March 2010. Pretreatment biopsies were performed to confirm the diagnosis of NMSC before treatment.

Exclusion criteria:
Not discussed.

Patients characteristics:
Mean age 73 years (range 49-97); 63% males; 96.7% Caucasian /non-Hispanic; 53% had basal cell carcinoma, 41% squamous cell carcinoma; 80.7% of the tumors were at stage T1; 8.8% were recurrent. The lesion sizes ranged from <1 to 5 cm, the lesion were on the nose in 28.7% of cases, face 31%, ear 12.9%, extremity , 12.9 %, scalp in 8.2%, and on the torso in 6.4% of cases. 65% of the patients had been previously treated for skin cancer.</td>
<td>For all patients the gross tumor volume was assessed visually, and a CT scan was used to assess the skin depth before treatment. Treatment planning was focused on calculating the dwell time to deliver the prescribed dose to a prespecified depth.

All lesions were then treated using HDR EBT system that delivered a dose of with 40.0 Gy in 8 fractions twice-weekly with 48 hours between fractions, prescribed to a depth of 3 to 7 mm.

Patients were followed-up to assess for acute and late toxicities, local control and cosmesis.</td>
<td><u>Efficacy results:</u>
All lesions resolved with treatment. And no recurrences were observed to the date of reporting the results.

<u>Adverse events:</u>
<table><tr><th>Adverse events</th><th>n/N lesions (%)</th></tr><tr><td>Early (≤3 months)</td><td></td></tr><tr><td>Rash dermatitis</td><td>142/171 83.0%</td></tr><tr><td>Pruritis</td><td>31/171 18.1%</td></tr><tr><td>Late (≥1 year)‡</td><td></td></tr><tr><td>Hypopigmentation*</td><td>5/46 10.9%</td></tr><tr><td>Rash dermatitis</td><td>3/46 6.5%</td></tr><tr><td>Alopecia</td><td>1/46 2.2%</td></tr><tr><td>Dry desquamation</td><td>1/46 2.2%</td></tr></table>*All were grade 1
‡There was no atrophy, hyperpigmentation, or telangiectasia.

<u>Cosmetic results*:</u>
All patients had a cosmetic rating of good or excellent at each follow-up.
At ≥1 year of follow-up 42 of the 46 lesions had cosmetic evaluation 39/42 (92.9% were excellent, and 3/42 (7.1%) were good.

*Assessed based on the radiation therapy oncology group scale
Excellent: no change to slight atrophy or pigment change, or slight hair loss, or slight induration or loss of subcutaneous fat.
Good: Patchy atrophy, moderate telangiectasia, and total hair loss, moderate asymptomatic fibrosis, or slight field contracture.
Fair: Marked atrophy and gross telangiectasia, severe induration or loss of subcutaneous tissue, field contracture > 10% linear measurement.
Poor (ulceration or necrosis).</td>
<td>The study was a case series with no control or comparison group.
The authors did not discuss how the patients were selected for this modality of treatment. Only 34% of the patients (26.9% of the lesions) had follow-up data for one or more years.</td>
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