



SKIN CANCER (OTHER THAN MELANOMA)

RADIOISOTOPE P32/RE188 INCORPORATED RADIOACTIVE SKIN PATCHES FOR TREATMENT OF BASAL CELL CARCINOMA

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Introduction: Basal cell carcinoma (BCC) is a common locally invasive malignant tumor of skin. Various invasive and non-invasive therapeutic modalities have been used to treat BCC with variable success.

Objective: We evaluated effectiveness and safety of radioisotopes P32/ Re188 incorporated skin patches for treatment of basal cell carcinoma.

Materials and Methods: Biopsy proven patients with BCC were included in the study. After complete clinical and laboratory evaluation, the patients were treated with either isotope P32 or Re188 incorporated radioactive skin patches. The patches were custom made according to size and shape of the lesion and a radioactivity (P32 or Re-188) of 37 MBq (1mCi)/cm² was added. The patches were applied for 90 – 150 minutes on the lesions to deliver a dose of 20 Gy/cm² in a single fraction and a total dose of 100 Gy/cm² was delivered in five fractions with alternate day application. Patients were followed up after 2, 4, 8 and 12 weeks to determine the response to therapy and adverse effects.

Results: The study had 10 patients, 6 males and 4 females, aged between 45 – 74 years (mean: 55.9 ±6.6 years) with 11 lesions of 1-20 cm² (mean area: 5.27 ±4.2 cm²) on head and shoulders. Eight lesions were treated with radioisotope P32 and 3 with Re188 skin patches. All lesions had complete clearance after 12 weeks of therapy and histopathology showed no evidence of BCC. Post treatment laboratory investigations were within normal limits. The response to treatment with two isotopes was comparable. There is no relapse of tumor in any patient after a mean follow up of 5.3 years (3.5-6.5 years).

Conclusions: The study has therefore shown that radioisotope P32/Re188 incorporated radioactive skin patches are effective and safe for treatment of BCC. Further studies are, however, needed to confirm our results.

