

Conclusions: It takes some time for prostate specific symptoms to improve after radiotherapy. Sexual problems are common even before initiation of treatment. These findings suggest that what drives the significant changes in FACT-P are changes in PWB and PS sub-scales, while EWB, FWB, and SWB appear to have little impact on overall Fact-P scores. Fatigue appears to be more common at one year follow up.

2298 RADIATION THERAPY OF EPITHELIAL SKIN CANCER

Locke JE, Karimpour S, Perez CA, Young G, Lockett MA

Mallinkrodt Institute of Radiology, St. Louis, MO, USA

Purpose: A total of 529 consecutively treated biopsy proven skin cancers treated from 1966 to 1996 were retrospectively analyzed to determine patterns of failure, report cosmesis and compare outcomes based on treatment modality.

Materials and Methods: Patient records were reviewed by the authors and data was recorded using a computer compatible form. Tumor information, doses and followup information were recorded.

Results: There were 385 basal cell carcinomas and 144 squamous cell carcinomas, of which 6 were variants of squamous cell carcinoma, in various anatomic locations. Radiation therapy was the initial treatment modality in 358 patients and 171 were treated after failing initial local excision. Lymph nodes were involved in 1 of 385 patients with basal cell carcinoma, in 12 of 80 (15%) patients with initially treated squamous cell carcinoma and 22 of 64 (34%) with recurrent squamous cell lesions.

Superficial X rays were used in 317 patients, electrons in 87, megavoltage photons in 25. The remaining 100 patients received a combination of photons and electrons.

Overall local tumor control was achieved in 85% of patients, 92% with basal cell and 75% with squamous cell. For lesions less than 1 centimeter, tumor control was 95% for basal cell and 90% for squamous cell carcinoma. For lesions 1 to 5 centimeters, tumor control was 85% for basal cell and 75% for squamous cell carcinoma. For lesions greater than 5 cm the tumor control was 85% and 55% respectively.

Tumor control was related to the modality used to treat the patient in spite of stratification of primary lesion size. For superficial X rays, tumor control was 98% for lesions less than 1 cm, 93% for lesions 1 to 5 cm and 100% for lesions greater than 5 cm. For electrons tumor control was 88%, 72% and 78% respectively. For mixed beams tumor control was 90%, 76% and 64% respectively.

An excellent or good cosmetic result was found in 78% of patients. Cosmesis had an inverse relation to the primary lesion size. 98% of patients with tumors less than 1cm, 85% of patients with lesions 1 to 5 cm and 70% of patients with lesions greater than 5 cm had excellent or good cosmesis.

The overall complication rate was 5%. This was related to the primary tumor size. For lesions 1 cm or less the complication rate was 1%, for lesions 1 to 5 cm 4.5% and for lesions greater than 5 cm 13%. Undoubtedly this is related to larger volumes and higher doses of radiation used for the larger lesions.

Conclusion: Radiation therapy is an excellent treatment modality for epithelial skin cancer. Local tumor control, cosmesis, and complications are related to the histology and size of the primary lesion and thus treatment at an early stage is strongly recommended.

2299 TREATMENT OF SKIN CARCINOMAS OF THE FACE BY HIGH DOSE RATE BRACHYTHERAPY AND CUSTOM MADE SURFACE MOLDS

Finestres F¹, Guix B¹, Martinez A¹, Guix R¹, Tello JI¹, Palma C¹

Fundacio IMOR, Barcelona, Spain¹; Universitat de Barcelona, Barcelona, Spain²

Background: To analyze the results obtained in a prospective group of patients with basal or squamous cell skin carcinomas of the face treated by high dose rate brachytherapy by custom made surface molds.

Methods: One hundred and thirty six patients with basal or squamous cell carcinomas of the face were treated between march 1992 and march 1997 by surface moulds and high dose rate brachytherapy with 192-Iridium. Nineteen patients were treated with standard Brock applicators and 117 patients with custom made polymethylmetracrillate applicators, built over a plaster mold obtained from the patient's face. Minimum tumor dose was 6.000 to 6.500 cGy in 33 to 36 fractions at 180 cGy/fraction in lesions of to 4 cm. Lesions greater than 4 cm were boosted up to 7.500-8.000 cGy after a 3 week pause.

Results: With the custom made surface molds, the dose distribution was uniform in the surface of the skin and at 5 mm depth in the whole area of the applicator. Differences between the areas of maximum and minimum dose at those depths never reached values greater than 5% of the prescribed dose. At the edges of the custom made molds dose gradient was sharp, being the detected dose at 5 mm from the applicator negligible. All the patients were complete responders. There were 3 local recurrences, 1/73 patients treated for primary lesions and 2/63 patients treated for recurrent tumors. No distant metastases were detected. Actuarial local control at 5 years for all patients was 98%, for patients with primary tumors and 87% for patients with recurrent tumors. The tolerance to treatment was excellent in all cases. No severe, early or late, complications were detected.

Conclusions: Radiotherapy is a highly effective treatment of skin carcinomas of the face. Custom made molds, to be used in conjunction with high dose rate brachytherapy equipment, makes possible to obtain a uniform dose distribution, with a sharp dose gradient in the limits of the applicators. Custom made surface molds are easy and safe to use and the fit very accurately for daily treatment. Local control is excellent with minimal sequelae or complications. Probably they will become the standard way of treatment of skin carcinomas of the face in a near future.