

NON-MELANOMA SKIN CANCER – Physician

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TrueBeam STx Offers Effective Treatment for Non-Melanoma Skin Cancer

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While surgery historically has been the primary form of treatment for non-melanoma skin cancer, external radiation therapy (XRT) is showing great promise (see chart below). Most of these patients in these studies were poor surgical candidates, or were treated for recurrence after surgery. These data include patients with both basal cell carcinoma and squamous cell carcinoma.

SKIN CARCINOMA RESULTS WITH PRIMARY XRT				
AUTHOR	# PATIENTS	LOCAL RECURRENCE	F/U (years)	
Petrovich	646	9.0%	10	
Abbatucci	675	4.0%	3	
Silverman	862	7.0%	5	
Avril	173	7.0%	4	
Seegenschmiedt	100	2.0%	5	
Mazeron	1,676	7.0%	5	
Griep	389	5.0%	5	
Fitzpatrick	584	5.0%	3	
Silva	334	20.0%	5	
Zablow	115	12.0%	4	
Locke	364	7.0%	6	
Caccialanza	671	12.0%	3	
Olschewski	104	0.0%	5	
Schulte	1,267	5.1%	6.5	
Hernandez	710	6.0%	5	
Fitzpatrick	584	5.3%	3	
Scholten	389	4.9%	5	

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Source?			

Specifically the results for basal cell carcinoma treated with XRT are shown below. These data are quite good, especially considering that about 1/2 of these patients were referred for XRT after surgical failure. The main prognostic factor for failure with XRT is T-Stage. Tumor recurrence is also an unfavorable prognostic factor.

BASAL CELL CARCINOMA RESULTS WITH PRIMARY XRT					
AUTHOR	#PTS	LOCAL RECURRENCE		F/U	
Lovett	242	9.0%		5	
Brady	444	4.0%		4	
Literature Review	4,695	8.7%		5	

**Source: J Dermatol Surg Oncol, 1989 ; 15 : 315*

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AUTHOR	#PTS	LOCAL RECURRENCE	F/U
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Brady	444	4%	4 yrs
Literature Review	4,695	8.7%	5 yrs

Source: J Dermatol Surg Oncol, 1989 ; 15 : 315

The following results with primary XRT have been reported (see chart below). Mazon et al, reported similar results in a series of 1,676 patients treated with XRT (Radiother Oncol, 1988 ; 13[3] : 165). Local recurrence developed in 4 percent of patients with lesions < 2 cm, compared to 12 percent in tumors 2-4 cm, and 19 percent in lesions > 4 cm). Local recurrence occurred in 5 percent of patients treated initially with XRT vs. 12 percent in patients treated for recurrence after surgery.

BASAL CELL CARCINOMA AND SQUAMOUS CELL CARCINOMA RECURRENCE AFTER PRIMARY XRT						
T-SIZE	BASAL CELL		SQUAMOUS CELL			
	PRIMARY	RECURRENT	PRIMARY	RECURRENT		
< 1 cm	3.0%	4.0%	0.0%	17.0%		
1 – 3 cm	5.0%	25.0%	10.0%	46.0%		
3 – 5 cm	15.0%	22.0%	12.0%	33.0%		

**Source: (IJROBP, 1990 ; 19 : 238)*

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**BASAL CELL CARCINOMA AND SQUAMOUS CELL CARCINOMA
RECURRENCE AFTER PRIMARY XRT**

BASAL CELL	SQUAMOUS CELL
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<u>T SIZE</u>	<u>PRIMARY</u>	<u>RECURRENT</u>	<u>PRIMARY</u>	<u>RECURRENT</u>
<u>≤ 1 cm</u>	3%	4%	0%	17%
<u>1–3 cm</u>	5%	25%	10%	46%
<u>3–5 cm</u>	15%	22%	12%	33%

Source: (IJROBP, 1990 ; 19 : 238)

Some randomized trials have been conducted to compare the outcome with radiation therapy vs. surgery. Avril et al, reported on 347 patients with basal cell carcinoma of the face measuring < 4 cm. Patients were randomized to radiation vs. surgery (Br J Cancer, 1998 ; 78 [9] : 1257). Local recurrence developed in 7.5 percent of patients treated with radiation vs. 0.7 percent in the surgery arm (p = 0.003). The radiation techniques were not standardized, with 55 percent of patients treated with interstitial implants, 33 percent with contact radiation, and 12 percent with XRT. In another study, Hall et al, reported on 93 patients with basal cell carcinoma randomized to receive XRT vs. cryosurgery (Clin Radiol, 1986 ; 37 [1] : 33). Local recurrence developed in 4 percent of patients treated with XRT, compared to 39 percent in patients undergoing cryosurgery.

Recently high dose rate (HDR) implant has been used in the treatment of non-melanoma skin cancer. The advantage compared to XRT is that the course of radiation can be given in six to 10 treatments with HDR as opposed to 20 to 30 XRT treatments. The following data are representative of the literature.

SKIN CARCINOMA RESULTS WITH HDR IMPLANT				
AUTHOR	#PTS	LOCAL RECURRENCE	F/U (years)	
Guix	117	2.0%	5	
Sedda	53	0.0%	4.3	
Svoboda	120	0.0%	1	
Kohler-Bock	520	8.0%	5	
Gauden	236	2.0%	5	
Tormo	32	2.0%	4	

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SKIN CARCINOMA RESULTS WITH HDR IMPLANT

<u>AUTHOR</u>	<u>#PTS</u>	<u>LOCAL RECURRENCE</u>	<u>F/U</u>
Guix	117	2%	5 yrs
Sedda	53	0%	4.3 yrs
Svoboda	120	0%	1 yr
Kohler-Bock	520	8%	5 yrs
Gauden	236	2%	5 yrs
Tormo	32	2%	4 yrs

Source?

Both XRT and HDR are painless treatment techniques and leave no scar. The treatments can be delivered in 30 minutes or less.

With its TrueBeam Radiotherapy Systems, Radiation Oncologists of Central Arizona (ROCA) at

the Phoenix CyberKnife Center offers both XRT and HDR technology. The Phoenix CyberKnife Center offers the widest range of cutting-edge skin cancer treatments, delivered by the most skilled, experienced and highly trained board-certified radiation oncologists.

For more information about non-melanoma skin cancer treatments options, contact the Phoenix CyberKnife Center [\(INSERT CONTACT DETAILS\)](#).