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Patient-Reported Outcomes of Electrodessication & Curettage for Treatment of Non-Melanoma Skin Cancer

Elyse Galles, BA[1], **Rupa Parvataneni, MS**[2], **Sarah E Stuart, BA**[2], **Eleni Linos, MD, DrPH**[2], **Sungat Grewal, BS**[3], and **Mary-Margaret Chren, MD**[2,4]

[1]Carver College of Medicine, University of Iowa

[2]Department of Dermatology, University of California at San Francisco, San Francisco, CA, 94110 USA

[3]Commonwealth Medical College, Scranton, Pennsylvania

[4]San Francisco Veteran Affairs Medical Center, San Francisco, CA, 94121 USA

We have shown that electrodessication and curettage (ED&C) cures most (>95%) basal cell and cutaneous squamous cell carcinomas (nonmelanoma skin cancers, NMSCs) for which it is used,(1) but skin-related quality of life after ED&C does not improve as much as after excision or Mohs surgery.(2) Our goal was to determine other patient-reported outcomes (PROs) after treatment of NMSC with ED&C.

We studied all patients with primary NMSCs treated with ED&C, excision, or Mohs surgery in 1999–2000 at a university hospital or its affiliated Veterans Affairs clinic, and who responded to a survey before treatment. The final sample consisted of 149 patients treated with ED&C and 568 treated with excision or Mohs surgery.

Three months after treatment, we used an adapted version of the Patient Satisfaction Questionnaire (PSQ-18) to measure satisfaction with care, including its technical quality, interpersonal manner, communication, financial aspects, time with clinician, and accessibility.(4) Responses vary from 1 to 5, with higher scores indicating greater satisfaction. One year after treatment, we used global items to measure patients' description of cosmetic appearance, bother from appearance, bother from scar, judgment of treatment

Corresponding author: Mary-Margaret Chren, MD, Mt. Zion Cancer Research Building, 2340 Sutter Street, Room N412, Mail code 0808, San Francisco, CA, 94143-0808 USA; Telephone: 415-476-9757; Fax: 415-476-6751; chrenm@derm.ucsf.edu.

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worth, and overall satisfaction with treatment. The response rate for PROs varied from 65% to 92%.

We used the chi-squared test for categorical variables and the Wilcoxon rank sum test for continuous variables. We used multivariable logistic regression models to determine if treatment independently predicted PROs better or worse than the median; these models adjusted for patient characteristics (age, gender, number of tumors at enrollment), tumor characteristics (histological type, diameter, invasiveness, location on the head and neck), practice site, and clinician training level.

Tumors treated with ED&C were less likely than those treated with excision or Mohs surgery to be located on the head and neck, to be invasive, to have histological risk factors for recurrence, and to have been treated by an attending physician (Table 1).

Three months after treatment, both groups were similarly satisfied with all domains of care except that patients treated with ED&C were somewhat less satisfied with the time spent with the clinician and the accessibility and convenience of their care. A year after treatment, patients treated with ED&C described worse cosmetic appearance and were more bothered by the appearance (Table 2). In adjusted analyses, patients treated with ED&C remained twice as likely to report more frequent bother from appearance (p=.002), but did not differ in any other PRO.

Patients treated with ED&C for NMSC were as satisfied as those treated with excision or Mohs surgery with much of their care, but they were more frequently bothered by the appearance even in adjusted analyses that controlled for patient and tumor characteristics and training level of clinician. Interviews would be required to understand patients' responses fully, but the results support the clinical impressions of many dermatologists: although overall outcomes are good, patients treated with ED&C may be more bothered by the treatment site. The findings highlight the importance of PROs after NMSC, and the need for thoughtful decision making for this most common cancer.

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Table 1

Characteristics of study sample of patients with nonmelanoma skin cancer[a]

CHARACTERISTICS	TREATMENT GROUP		
	ED&C (N=149)	Excision or Mohs Surgery (n=568)	p[b]
PATIENT CHARACTERISTICS			
Age, years, median (IQR)	66 (54–76)	69 (56–77)	.08
Gender male	79%	76%	.42
Income ≤$30,000	49%	53%	.30
History of prior NMSC	43%	48%	.30
Number of NMSCs at presentation, mean ± Standard Deviation	1.3±0.6	1.3±0.7	.95
TUMOR CHARACTERISTICS			
HISTOLOGICAL TYPE, Basal Cell Carcinoma	80%	73%	.10
Invasive	44%	82%	<.001
Histopathological risk factor for recurrence[1]	6%	26%	<.001
Tumor diameter, mm, median (IQR)	8 (5–12)	8 (5–12)	.63
Tumor Present on Face, Scalp or Neck	28%	79%	<.001
CARE CHARACTERISTICS			
Treatment Site, Veteran Affairs Medical Center (VA)	44%	51%	.12
Training level of treating clinician, Attending Physician	52%	69%	<.001
Annual dermatology visits over follow-up period, median (IQR)	1.8 (1.0–2.8)	1.7 (0.6–3.1)	.18
Number of Cycles of ED&C Performed, mean±SD	2.9±.36	NA	NA
Closure type			
Secondary intention	100%	11%	<.001
Primary linear closure	0%	68%	
Use of flap or graft	0%	19%	
Other	0%	2%	

[a] Data were missing for the ED&C group/Excision or Mohs group for the following number of patients or tumors: income 13/37, skin type 7/80, health status 12/53, tumor diameter 52/39, training level of clinician 11/8, cycles of ED&C 32, and closure type 7/33.

[b] P value refers to comparison of ED&C group to Excision/Mohs group

Table 2

Patient reported outcomes that differed in treatment groups after treatment of non-melanoma skin cancer[a,b]

OUTCOME	**TREATMENT GROUP MEAN SCORE±SD**		
Domains of Satisfaction 3 Months after Treatment[c]	ED&C (N=149)	Excision or Mohs (n=568)	P[c]
Time Spent with Clinician *(eg, doctor or nurse spent plenty of time with me)*	3.90±.8	4.05±.8	.06
Accessibility and Convenience *(eg, easy access to specialists and appointments)*	3.65±.9	3.86±.8	.03
Other Patient-Reported Outcomes 1 Year After Treatment			
"How would you describe the cosmetic outcome (appearance) of your treatment?": 1poor 2 fair 3 good 4 very good 5 excellent	3.45±1.3	3.79±1.2	.02
"How often are you bothered by the appearance of your skin problem?": 1 never bothered to 7 always bothered	3.06±2.1	2.37±1.8	.002

[a] from the 18-item Patient Satisfaction Questionnaire, scores vary 1–5, higher score corresponds to greater satisfaction

[b] response rate for all groups varied from 65%–71%

[c] P value refers to comparison between ED&C and Excision/Mohs group