Letters

RESEARCH LETTER

Patient-Reported Problems After Office Procedures

Even though 83 million procedures are performed in medical offices in the United States each year,[1] patients are only rarely asked about problems they experience after these procedures. This oversight may highlight a key opportunity to improve health care because patient self-reporting is known to offer both clinical and scientific value.[2,3] To inform decision making for office-based procedures, we studied patients treated for nonmelanoma skin cancer (NMSC), the most common malignant neoplasm,[4] which is most often treated with an office procedure.

Methods | We conducted a prospective cohort study of 886 consecutive patients with basal or squamous cell skin cancer who completed an in-person questionnaire before treatment. Office treatments for NMSC included Mohs surgery, excision, and destruction with cryotherapy or electrodessication and curettage. At 3, 12, and 18 months and annually up to 5 years after treatment, patients were asked "In your opinion, have there been any complications of your treatment during or after the treatment itself?" Those who reported a complication were asked to describe it and to rate its severity using a Likert-like scale ranging from minimally to extremely serious. Descriptions were classified by 2 independent clinicians into the following 2 categories: (1) medical complications (bleeding, infection, pain, swelling, poor wound healing, numbness or itching, problem with motor function, and/or allergic reaction to bandages or antibiotics) and (2) nonmedical problems (problems with scar or appearance, need for additional treatment, administrative problems, or other). Overall, 83% of patients responded to at least 1 questionnaire. We calculated complication rates as the number of patients of our baseline cohort who reported a complication at any time point, making the conservative assumption that all nonresponders, including patients lost to follow-up, did not experience complications. Two clinicians reviewed all medical charts for complications up to 5 years after treatment.

Results | Cohort patients were typical of patients with skin cancer nationwide (**Table**). More than a quarter of patients (236 of 866 [27%]) reported a problem after treatment, and 14% overall described medical complications (**Figure**). For example, 7% experienced pain, numbness, or itching; 5% had problems with wound healing; 5% had infection or swelling; 2% had bleeding; and 2% had problems with motor nerve function. Overall, 10% of all patients described problems that were "moderate, very, or extremely serious." Complications were noted by the clinician in 3% of patients' medical charts.

Discussion | Our findings show that more than a quarter of patients perceived complications after a common office procedure, treatment for skin cancer, and that 10% of patients regarded their problems as at least moderately serious. We also found a notable discrepancy between patients' perceptions and clinicians' reports of complications after office procedures. In fact, patients' problems were only rarely documented in the medical record. The reasons for our findings are unclear. Clinicians may be unaware of patients' experiences, or they may decide that these problems do not warrant documentation as complications in the medical chart. Patients may overstate problems (eg, scars) that are, to clinicians, largely unavoidable. Overall, this discrepancy suggests that patients may have a broader view of what it means to have complications after procedures, including nonmedical problems (eg, problems with insurance or follow-up appointments) and expected consequences of a procedure (eg, scars or need for additional treatment).

Table. Characteristics of 866 Patients With NMSC Who Responded to Baseline Questionnaire and Were Followed up for 5 Years After Treatment

Characteristic	All Cohort Patients, Mean or % (N = 866)
Patient	
Age, mean (IQR), y	66 (55-77)
Male sex, %	75
History of NMSC, %	57
NMSC at baseline, mean (range), No.	1.3 (1-8)
Annual income <$30 000, %	51
Education ≤high school, %	38
Tumor	
Tumor diameter, mean (IQR), mm	8 (5-12)
Tumor on central face, %	41
Basal cell carcinoma, %	75
Superficial pathologic condition, %	29
Treatment, No. (%)	
Mohs	343 (40)
Excision	324 (37)
Destruction	191 (22)
Other	8 (1)
Patient-reported problems, No. (%)	
Overall	236 (27)
Medical complications	123 (14)
Nonmedical problems	113 (13)
Severity	
Mild	146 (17)
Moderate, very, or extremely	90 (10)
Physician-recorded complications, No. (%)	22 (3)

Abbreviations: IQR, interquartile range; NMSC, nonmelanoma skin cancer.

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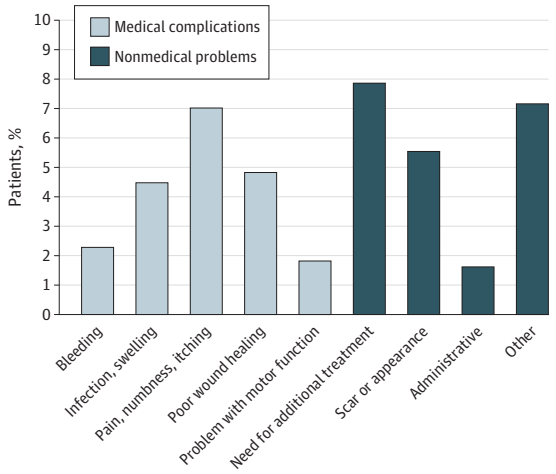
Figure. Types of Complications Described by Patients Treated for Nonmelanoma Skin Cancer (NMSC)



The "Administrative" category includes problems with insurance, travel or telephone contact with clinic. The "Other" category includes patient responses reported by less than 1% sample, for example, allergic reactions, anxiety, problems relating to postoperative period (eg, "not able to wear glasses because ear flap attached to scalp," "have to wear a dressing over my mouth, need to drink with a straw," "can't swim anymore and I was a competitive swimmer").

Medical care is probably improved if clinicians understand patients' experiences.[2,5] Such understanding may identify adverse outcomes that can be prevented or may highlight situations in which educating and preparing patients may more closely align their expectations with likely outcomes. Knowledge about patients' experiences after procedures can also improve decision making by future patients by providing clear data about prognosis. Because office procedures are among the most common medical interventions, efforts to improve their outcomes are important. We propose that these efforts can be strengthened by asking patients directly about their experiences.

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Study concept and design: Linos, Wehner, and Chren.
Acquisition of data: Chren.
Analysis and interpretation of data: Linos, Wehner, Frosch, Walter, and Chren.
Drafting of the manuscript: Linos.
Critical revision of the manuscript for important intellectual content: Linos, Wehner, Frosch, Walter, and Chren.
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Blood Pressure 1 Year After Completion of Web-Based Pharmacist Care

Meta-analyses provide strong evidence that blood pressure (BP) control improves with "team-based" hypertension care provided by a health professional such as a pharmacist or nurse, separate from physician care.[1] Few studies have analyzed whether team care leads to sustained BP reductions after the end of an intervention.

In the Electronic Communications and Home Blood Pressure Trial (e-BP),[2] patients with uncontrolled BP were registered to use an existing patient website (with a patient-shared electronic health record [EHR] and secure e-mail) and randomly assigned to receive the following interventions: (1) usual care (UC), (2) home BP monitoring (BPM) and website training, or (3) BPM and website training plus pharmacist team-care delivered via the website (Pharm). At the end of the 1-year intervention, Pharm patients were twice as likely to have controlled BP.[2] Our objective was to determine if BP reductions were sustained after the intervention ended.

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Methods | Details of the study design[3] and main study results[2] have been previously published. The Group Health institutional review board approved all study procedures.

We collected all BPs available in the EHR from participants' primary care visits between 18 and 30 months after randomization (approximately 6 to 18 months after completion of all interventions). If more than 1 BP was available, the BP closest to 24 months (defined as 1-year after intervention) was used. Primary outcomes included change in baseline systolic BP (SBP) and diastolic BP (DBP) and BP control at 1 year after intervention. Secondary outcomes, including number (by class)[2] and adherence to[4] antihypertensive medications and utilization of health care services, were calculated using automated data. Preplanned subanalyses

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