

## Letter

# Pre-Mohs micrographic surgery anxiety is higher in first-time and facial surgery patients

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### To the Editor

Cutaneous surgery, such as Mohs micrographic surgery (MMS), can provoke patient anxiety.<sup>1,2</sup> Preoperative anxiety may adversely affect outcomes and increase postoperative pain.<sup>3,4</sup> Anxiety in MMS is not well characterized. We evaluated preoperative anxiety in MMS and explored whether anxiety could be reduced by reading a reassuring patient vignette.

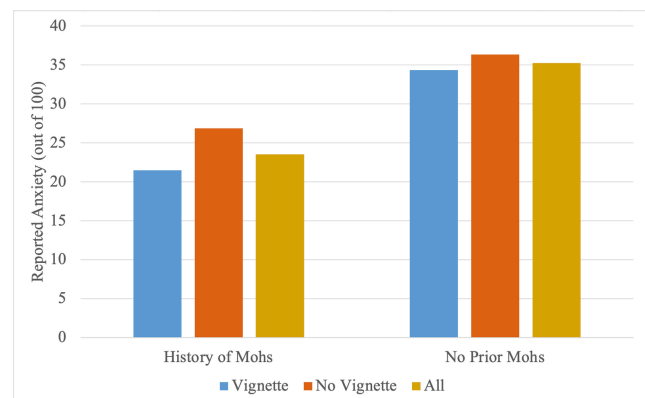
With Wake Forest School of Medicine Institutional Review Board approval, we recruited 100 patients for an interventional study evaluating and reducing anxiety surrounding MMS. Fifty patients had a history of MMS, and 50 were undergoing MMS for the first time. Patients were randomly assigned to a treatment group that heard a reassuring vignette about MMS or a control group proceeding without the vignette. The vignette featured a patient describing a positive experience undergoing MMS at our facility and took approximately 30 seconds to read. All patients completed a survey, which included an anxiety score on a sliding visual analog scale from 0 to 100, along with demographic information. Descriptive statistics, independent t-tests, and multivariate analyses were performed.

The study population was primarily men (64%) with a mean age of  $67.0 \pm 9.8$  years (Table 1). Fifty-nine patients heard the vignette, while 41 patients did not. Overall, average anxiety was lower among patients with a history of MMS compared with first-time MMS patients (23.5 versus 35.2;  $P < .05$ ) (Figure 1). Women reported higher anxiety than men, but this difference was not statistically significant (34.3 versus 26.6;  $P = .06$ ). The patient vignette did not significantly affect anxiety (27.6 with vignette versus 32.0 without;  $P = .19$ ).

Anxiety varied by procedure location. Patients undergoing MMS on the face reported higher anxiety compared with patients undergoing MMS at other sites (35.8

**Table 1.** Patient Demographics and Intervention Characteristics.

Characteristic	Value
Sex, n	
Male	64
Female	36
Mean age, y	$67.0 \pm 9.8$
History of Mohs, n	
Yes	50
No	50
Intervention, n	
Reassuring vignette	59
No vignette	41



**Figure 1.** Reported anxiety based on Mohs micrographic surgery history and intervention (reassuring patient vignette).

versus 21.8;  $P < .05$ ). This finding remained true when stratified by first-time MMS patients (41.4 versus 29.0;  $P < .05$ ) and patients with a history of MMS (30.9 versus 13.2;  $P < .05$ ). Among specific surgical locations, anxiety was highest for the lips (53.0), nose (40.6), and eyelid (36.5), and lowest for the scalp (9.8).

Although limited by a small sample size, preoperative anxiety tended to be higher in first-time MMS patients and in patients undergoing MMS on the face. However, anxiety varied within these groups, suggesting that assessing an individual patient's anxiety and exploring its underlying causes may help mitigate adverse effects.<sup>1</sup> Sharing a reassuring clinical vignette, however, did not appear to substantially reduce anxiety.

## Potential conflicts of interest

Steven Feldman, MD, PhD, has received research, speaking, and/or consulting support from various companies including Galderma, GSK/Stiefel, Almirall, Leo Pharma, Boehringer Ingelheim, Mylan, Celgene, Pfizer, Valeant, AbbVie, Samsung, Janssen, Lilly, Menlo, Merck, Novartis, Regeneron, Sanofi, Novan, Quriel, National Biological Corporation, Caremark, Advance Medical, Sun Pharma, Suncare Research, Informa, UpToDate, and the National Psoriasis Foundation. He is founder and majority owner of [www.DrScore.com](http://www.DrScore.com) and founder and part-owner of Causa Research, a company dedicated to enhancing patient adherence to treatment. The remaining authors declare no conflicts of interest.

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