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Perceptions and Knowledge of Dermatologic Side Effects of Anti-Cancer Therapies: A Pilot Survey

Nikita Menta BA,[a] Savanna I.Vidal BS,[a] Cleo Whiting BA,[a] Sara Abdel Azim MS,[b] Sapana Desai MD,[a] Adam Friedman MD FAAD[a]

[a]Department of Dermatology, George Washington University School of Medicine and Health Sciences, Washington, DC
[b]Georgetown University School of Medicine, Washington, DC

INTRODUCTION

Anti-cancer therapies (ACTs) cause physically and psychosocially distressing dermatologic side effects (DSEs) that occasionally necessitate dose reduction or treatment discontinuation.[1] While their psychological impact is well-established, limited data exist on public perceptions and knowledge of DSEs.

To evaluate knowledge and perceptions of ACT DSEs in a medically underserved community, an IRB-approved survey (#NCR191384) was offered to all attendees (>18 years) at two health fairs in Southeast Washington, D.C., the most medically underserved area of the district. ACT was defined as any anti-cancer medication and/or radiation. Assessed DSEs included hair loss (HL), dry skin/rash, and nail changes (NCs). The survey was completed by 77 attendees (65% response). The majority were female (88.3%), 45-54 years old (23.7%), and Black or African American (71.5%). Twenty-one percent of respondents were previously treated for cancer.

Most respondents believed that ACTs cause HL (52% [all respondents] vs 31% [respondents previously treated for cancer]), dry skin/rash (47% vs 50%), and NCs (41% vs 31%) more than half the time (Figure 1). The DSEs that respondents most frequently reported would make them possibly/definitely not undergo treatment were permanent HL (33% vs 13%), temporary eyebrow/eyelash HL (27% vs 13%), and permanent nail discoloration (24% vs 13%; Figure 2). Notably, half of the patients who were previously treated for cancer did not visit a dermatologist during cancer treatment.

FIGURE 1. Knowledge of DSE prevalence among all respondents and respondents previously treated for cancer.

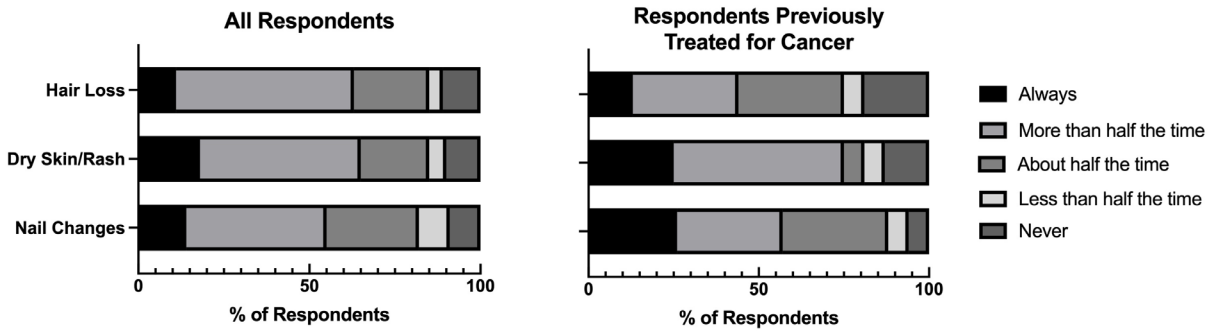
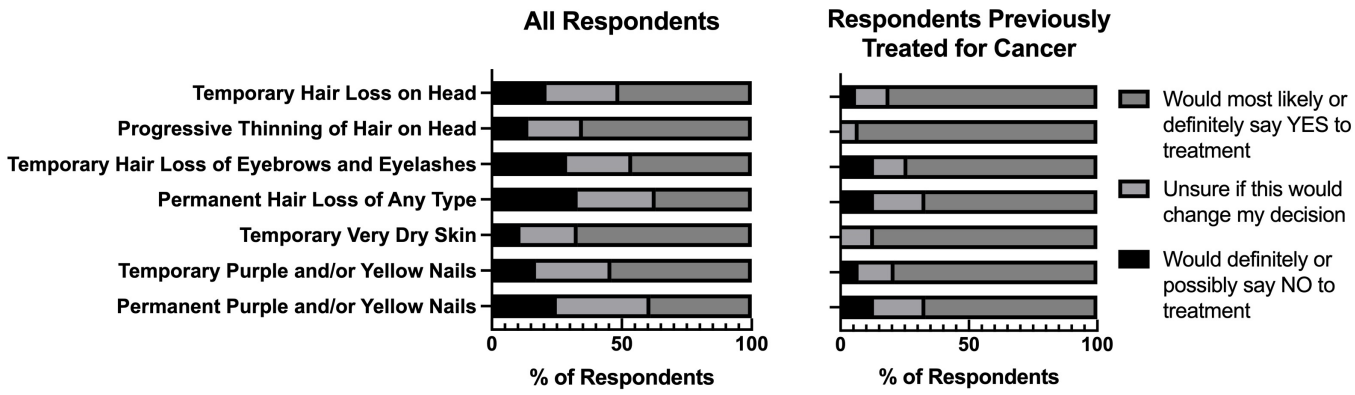


FIGURE 2. Influence of DSEs on the decision to undergo treatment among all respondents and respondents previously treated for cancer.



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In this pilot study, most respondents, including those who have previously been treated for cancer and cancer-naïve individuals, believed that ACT DSEs occur at high rates. Many respondents incorrectly overestimated the prevalence of specific DSEs, such as HL. HL has been reported to occur in ~14.7% and 52.1% of patients treated with targeted and classic chemotherapy, respectively; however, most respondents believed HL occurs much more frequently than half the time, highlighting a target for educational intervention to prevent treatment avoidance and increase adherence.[2,3] Addressing this knowledge gap is critical, especially given that up to one-third of respondents, including individuals who had previously undergone cancer treatment, reported that they would hypothetically decline ACT due to various DSEs. While this pilot survey posed hypothetical scenarios to respondents, the rates of potentially declining treatment exceeded prior research, which demonstrated that 8% of breast cancer patients rejected chemotherapy due to HL.[4] This cannot be overlooked as negative DSE perceptions, let alone past experience, may prevent initiation of life-prolonging treatments and re-initiation for cancer recurrences.

Altogether, these data underscore the need for improved DSE management. Dermatologists should educate oncologists and primary care physicians on patients' experiences undergoing ACT and treatments for DSEs. Since HL is the most distressing DSE, care team members should be especially aware of treatments, including scalp cooling systems, for example, DigniCap, and low-dose oral minoxidil, which have both demonstrated efficacy in preventing and/or treating chemotherapy-induced alopecia.[5] Furthermore, interdisciplinary collaboration through routine case discussions, dermatologists speaking at oncology educational events, and reserving supportive oncodermatology appointment types in general dermatology clinics can also improve DSE management. Additionally, creating accessible, patient-facing materials on DSE management to educate newly diagnosed patients is critical. Finally, the current management strategies have limited efficacy, emphasizing the need for more preventative methods and treatments. Overall, this study highlights an opportunity to reduce the burden of DSEs through education, closer interdisciplinary collaboration, and the development of new treatments.

DISCLOSURES

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REFERENCES

1. Almeida V, Pires D, Silva M, et al. Dermatological side effects of cancer treatment: psychosocial implications-a systematic review of the literature. *Healthcare (Basel)*. 2023;11(19):2621.
2. Belum VR, Marulanda K, Ensslin C, et al. Alopecia in patients treated with molecularly targeted anticancer therapies. *Ann Oncol*. 2015;26(12):2496-2502.
3. Utlu Z, Bilen H. Evaluation of cutaneous side-effects associated with chemotherapeutic use in oncological patients. *Postepy Dermatol Alergol*. 2021;38(6):1078-1085.
4. Kanti V, Nuwayhid R, Lindner J, et al. Analysis of quantitative changes in hair growth during treatment with chemotherapy or tamoxifen in patients with breast cancer: a cohort study. *Br J Dermatol*. 2014;170(3):643-650.
5. Wikramanayake TC, Haberland NI, Akhundlu A, et al. Prevention and treatment of chemotherapy-induced alopecia: what is available and what is coming?. *Curr Oncol*. 2023;30(4):3609-3626.

AUTHOR CORRESPONDENCE

Adam Friedman MD FAAD
E-mail:..... ajfriedman@mfa.gwu.edu

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