

18821

**Melasma cost and factors influencing patient satisfaction**

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Background: Melasma is a common hyperpigmentation disorder often involving the face and neck with ~5-6 million women affected annually in the United States. Patients have negatively impacted emotional well-being and quality of life often prompting medical therapies. Treatment modalities are diverse and influenced by various factors including cost, prescribing behaviors, and patients' expectations. Quantifying these differences is essential to determine its impact on patient care and satisfaction. We analyzed 175 responses to a 26-question survey evaluating patient expectations, willingness, and satisfaction regarding treatment of melasma. Patient willingness and satisfaction were measured on a 1-5 Likert scale. The majority of respondents were willing to pay out-of-pocket and consider cost as a major factor for not pursuing treatment. Older melasma patients reported feeling more embarrassed about their condition, while younger patients were more concerned with further expansion in discoloration. Caucasians reported greater area of discoloration and willingness for invasive treatments. Older cohorts preferred to use topical medications and younger cohorts were more willing to take oral therapies. The prescribing behaviors and delivery of care were significantly different by age and ethnicity. Younger and non-Caucasian patients were more likely to be offered multiple treatment options with discounted coupons based on their ability to pay. The same cohort were more satisfied with the cost of treatment and clinical outcome. Insight into patient expectations and the factors affecting prescribing behaviors is an important contributor to improved patient satisfaction. Understanding the influence of cost can help ensure the delivery of care and improve clinical outcomes.

Commercial disclosure: None identified.

18822

**Assessment of physiologic and perceptual barriers to physical activity in patients with psoriasis: A pilot study**

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Introduction: Research suggests psoriasis may interfere with participation in physical activity, but most studies have not evaluated the etiology. In this pilot study, we investigated physiologic and perceptual barriers to physical activity among individuals with psoriasis.

Methods: Participants included 20 individuals with a history of moderate to severe psoriasis (PsO) and 23 controls (groups matched on age, gender, and BMI). Cardiopulmonary diseases and psoriatic arthritis excluded participation. Real-world activity was measured with accelerometers over 7 days. Participants completed self-selected 20-minute treadmill bouts in a laboratory. Participants completed questionnaires relating to self-efficacy for exercise (SEE), social physique anxiety scale (SPAS), pruritus, and dermatology life quality index (DLQI). Group comparisons were made using Mann-Whitney *U* tests while associations were evaluated with Spearman correlations. Significance was *P* < .05.

Results: There were no differences in time spent in moderate-vigorous activities between psoriasis and control groups (24 vs 28 min/day, *P* = .301). Relative to controls, PsO chose treadmill speeds that were 20%-25% slower (*P* < .05). Among PsO, SEE was significantly positively correlated with real-world moderate-vigorous activity time ( $\rho = 0.64$ ) whereas SPAS was negatively correlated ( $\rho = -0.45$ ). Pruritus was higher at all time points during treadmill exercise (*P* < .05) for PsO. Further, pruritus and DLQI negatively correlated with vigorous activity ( $\rho = -0.49$  to  $-0.57$ ).

Conclusions: Having psoriasis corresponded with slower speeds during treadmill exercise, and several factors (SEE, SPAS, pruritus) predicted real-world activity engagement. Our findings suggest physical inactivity is a multifactorial problem in psoriasis but that pruritus is an important novel explanation.

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18826

**Comparing wage earnings between psoriasis patients on biologics versus those on oral therapies: An epidemiologic study in the United States**

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Background: The ability to work is among the most important aspects of disease management for patients with psoriasis. A critical gap exists in understanding how systemic therapies affect moderate to severe psoriasis patients' ability to obtain work, be productive at work, and their earning potential.

Methods: We compared personal economic indicators (annual and hourly wages, weekly hours worked, and disability days) between psoriasis patients on biologic therapies versus those on oral medications. Using the 2003-2015 Medical Expenditure Panel Survey, we performed multivariate linear regression analyses to investigate the relationship between personal economic indicators and psoriasis treatment, adjusting for age, sex, race, ethnicity, insurance status, education status, and clinical comorbidities.

Results: The number of US respondents with psoriasis who reported using biologic or oral therapies from 2003 to 2015 was 2,638,681 (weighted). The mean annual wage among patients on biologics (\$52,141.34 [95% CI 40,976-63,306]) was significantly higher than that of patients on oral therapies (\$33,584.87 [95% CI 27,687-39,483]) (*P* = .019). The mean weekly hours worked among patients on biologics (43.7 hours [95% CI 40.01-47.47]) was significantly higher than that of patients on oral therapies (40.6 hours [95% CI 39.66-41.59]) (*P* = .003). Hourly wages and disability days were not significantly different between the 2 groups.

Conclusions: Psoriasis patients on biologics earned higher annual wages compared with those on oral therapies, and this may be due to the increased number of work hours by those on biologic therapies. Therefore, clinicians must account for differences in patients' earnings when deciding systemic treatment for patients with moderate to severe psoriasis.

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18845

**Twelve-month local control and satisfaction results of selected patients with nonmelanoma skin cancer following outpatient superficial radiation therapy**

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Background: Nonmelanoma skin cancer (NMSC) is the most common malignancy in the United States. With radiotherapy, patients may achieve superior esthetic results and reduction in the morbidity and mortality associated with surgical treatment.

Methods: From January 2017 to June 2019, patients with biopsy-proven NMSC lesions were treated with superficial radiation therapy (SRT) and observed at regular intervals. SRT was administered using ultrasound guidance by board-certified radiation therapists under supervision of a radiation oncologist and dermatologist. Energy selection (in kV) and total dosage (in cGy) were determined by dermoscopic, ultrasound, clinical, and histologic characteristics. Total dosage was divided into ~20 fractions, at 3-4 fractions weekly. Patients were followed every 2 weeks until disease-free state, or longer. Cosmesis was rated on a 1-5 Likert scale, and patients were provided an experiential survey at completion.

Results: A total of 43 patients, with 58 histologically verified basal cell carcinoma and squamous cell carcinoma lesions were followed. Median age was 79 years. Mean follow-up was 66.9 weeks. Average depth of initial NMSC was 1.3 mm on ultrasound. Mean total dosage was 5046.1 cGy. Only 1 of 58 lesions (1.7%) developed recurrence. All lesions scored either 4 or 5 in cosmetic appearance. One patient admitted to transportation difficulties hindering satisfaction, with all other patients rating satisfaction at 4 of 4. All patients stated they would recommend this treatment, and would undergo SRT again should another NMSC be diagnosed.

Conclusions: SRT confers convenient outpatient treatment with very low recurrence rate, superior cosmesis, and high patient satisfaction.

Commercial disclosure: None identified.