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Differences in Keloid and Hypertrophic Scar Treatment Patterns by Race

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Dear Editor,

Keloids are a dermatologic condition with high recurrence rates and variable treatment success. Racial disparities can play a crucial role in diagnosis delays and treatment outcomes. Studies have shown a higher incidence of keloids found in non-white patients, with Black patients diagnosed with larger and more advanced keloids compared to other racial groups.[1] Although racial disparities in dermatologic care have been documented, treatment trends specific to keloids remain underexplored. We sought to evaluate racial differences in treatment patterns for keloids using a large representative cohort.

This study utilized data collected on May 2, 2025, from theTriNetX Research Network, which provides access to de-identified electronic medical records for approximately 144 million patients across 102 healthcare organizations. We identified patients aged 18 to 89 at the time of keloid diagnosis (ICD-10: L91.0) and stratified them by race (White, Black or African American, Asian, or Other Race). We then screened electronic health records for medical and procedural interventions performed within one year of keloid diagnosis.

Outcomes of interest included intralesional injections (CPT: 11900, 11901), destruction procedures (CPT: 17110, 17111), radiation treatment (CPT: 77261, 77262, 77401), excision procedures (CPT: 11400-11446), repair procedures (CPT: 12031-13153, 14000-14302), fractional ablative laser (CPT: 0479T, 0480T), and medications including Tacrolimus and Imiquimod. Patients who received procedures or medications of interest prior to a diagnosis of keloids were excluded from analysis to reduce confounding from individuals receiving treatments for other conditions.

Among keloid patients, 45,191 identified as Black, 16,179 as Asian, 99,076 as White, and 8,334 as Other. Blacks, Asians,

TABLE 1.

Percent of Patients Receiving Treatment Outcomes by Race With Odds Ratios Compared to White Patients

Treatment	Black (no.)	% (OR)	Asian (no.)	% (OR)	Other (no.)	% (OR)	White (no.)	% of Patients
Intralesional Injection	4,098	10.72 (1.59)	1,254	9.32 (1.38)	630	9.32 (1.38)	5,152	6.74
Repair Procedures	2,450	5.72 (1.13)	401	2.59 (0.51)	340	4.45 (0.88)	3,986	5.05
Keloidectomy	2,752	6.43 (1.79)	448	2.91 (0.81)	296	3.8 (1.06)	3,153	3.59
Destruction Procedures	204	0.46 (0.19)	180	1.15 (0.48)	126	1.58 (0.66)	2,099	2.4
Tacrolimus	181	0.41 (1.35)	76	0.48 (1.59)	38	0.47 (1.55)	293	0.3
Imiquimod	85	0.19 (0.59)	36	0.22 (0.69)	24	0.29 (0.90)	313	0.32
Laser	214	0.47 (0.87)	45	0.28 (0.51)	94	1.13 (2.08)	536	0.54
Local radiation	14	0.03 (1.5)	10	0.06 (3.00)	10	0.12 (6.00)	15	0.02
Radiation Therapy	278	0.62 (7.34)	13	0.08 (0.96)	10	0.12 (1.43)	83	0.08

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and Others were generally more likely to receive intralesional injections, keloidectomy, repair procedures, and tacrolimus, while whites were more likely to receive destruction procedures, imiquimod, and laser treatment (Table 1). These findings reveal marked racial differences in keloid treatment, which may reflect disparities in access to care, insurance coverage, or provider decision-making. Previous research suggests that procedural therapies such as lasers have higher risk of keloid worsening in comparison to medication alone.[2] Additionally, a study analyzing risk factors for keloid recurrence in 203 pediatric patients found treatment combinations such as surgical excision, skin grating, and steroid injection with keloid worsening.[3] Within this context, differences in keloid treatment as a result of racial disparities may contribute towards disease severity and morbidity. Further research is needed to assess how these patterns impact clinical outcomes and long-term disease burden.

DISCLOSURES

The authors have no conflicts to disclose.

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