

We analyzed a large, multicenter, retrospective cohort of 368 adult patients with SJS/TEN from the United States.<sup>4</sup> Of 314 patients known to survive to hospital discharge, 150 (47.8%) had information available regarding postdischarge follow-up. Of these, there was no mention of SJS/TEN-related sequelae in 54.7% (82/150), and long-term sequelae were noted in the remaining 45.3% (68/150), characterized as ocular, cutaneous, gastrointestinal, genital, renal, pulmonary, or other. Sequelae were reported to be severe in 15.3% (23/150) of patients (Table 1). Ocular sequelae were most common (20.6%, 31/150), followed by cutaneous (19.3%, 29/150), genital (5.3%, 8/150), oral (4.0%, 6/150), renal (2.0%, 3/150), and gastrointestinal (0.67%, 1/150). Other sequelae not fitting into these categories included depression, anxiety, chronic pain, tinnitus, and limb amputations.

At the time of initial hospitalization, 12.7% (19/150) of patients had severe ocular SJS/TEN, and 34.0% (51/150) had severe oral SJS/TEN. Such patients, as well as those with higher median body surface area involvement, were at increased risk of long-term sequelae, including sequelae characterized as severe (all  $P < .01$ ). Patients with severe genitourinary SJS/TEN (12.7%, 19/150) were also at risk of severe long-term sequelae ( $P = .02$ ) (Table 1).

There was no association between age, sex, or race and the risk of long-term sequelae in this cohort. SJS/TEN cause/trigger and days from symptom onset to hospital admission, dermatology consultation, diagnosis, and drug discontinuation also were not associated with development of SJS/TEN-related sequelae.

These data suggest that long-term SJS/TEN-related sequelae are relatively common and frequently severe, corroborating rates of previously reported sequelae in SJS/TEN. Higher acuity of SJS/TEN at the time of initial presentation—specifically, the presence of severe mucosal disease and higher total body surface area involvement—predicts the development of long-term SJS/TEN-related sequelae.

This study is limited by its retrospective nature, which obscures a detailed accounting of the specific features of patient sequelae and almost certainly underestimates their prevalence, because information on sequelae was determined via retrospective chart review rather than prospective systematic evaluation and was not available for all patients. Because all patients were managed by dermatology hospitalists at academic referral centers, results may not be fully generalizable. Future studies should prospectively evaluate the long-term sequelae of patients with SJS/TEN as an important marker of disease outcome and

treatment efficacy. Clinicians should be aware of the potential for long-term complications among SJS/TEN survivors.

Leo L. Wang, MD, PhD,<sup>a</sup> Megan H. Noe, MD, MPH, MSCE,<sup>b</sup> and Robert G. Micheletti, MD<sup>c</sup>

From the University of Pennsylvania Perelman School of Medicine, Philadelphia<sup>a</sup>; Department of Dermatology, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts<sup>b</sup>; and Departments of Dermatology and Medicine, University of Pennsylvania Perelman School of Medicine, Philadelphia.<sup>c</sup>

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Correspondence to: Robert G. Micheletti, MD, 3400 Civic Center Blvd, Perelman Center for Advanced Medicine, Room 724, Philadelphia, PA 19104

E-mail: [Robert.micheletti@pennmedicine.upenn.edu](mailto:Robert.micheletti@pennmedicine.upenn.edu)

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#### The relationship of diagnosed acne and weight status in adolescent girls

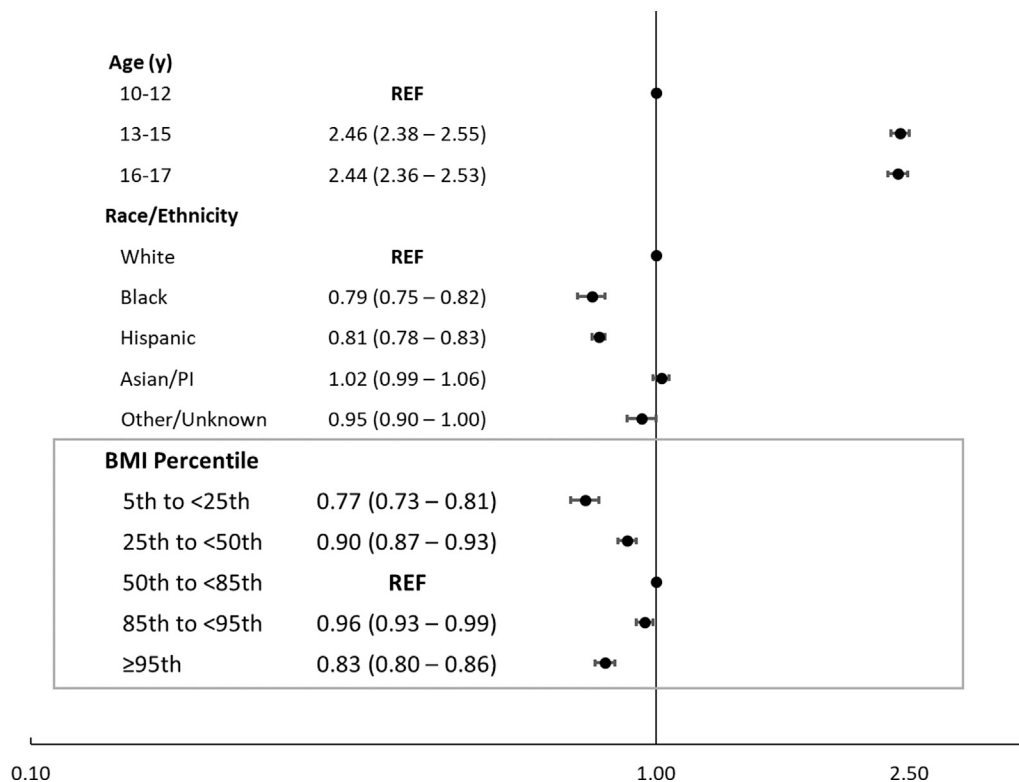


To the Editor: The incidence of adolescent acne and obesity has increased in recent decades; however, a strong association between weight and acne has not been established. Pediatric studies have found higher levels of acne in individuals with increased insulin resistance or greater milk consumption,

**Table I.** The percentage of girls with diagnosed acne by weight status, stratified by race/ethnicity and age

	Total no.	Normal weight, BMI percentile			Overweight	Obese
		Fifth to <25th, 12,661	25th to <50th, 22,765	50th to <85th, 49,499	85th to <95th percentile, 23,712	≥95th percentile, 20,316
Overall	128,953	1705 (13.5%)	3805 (16.7%)	9433 (19.1%)	4169 (17.6%)	2941 (14.5%)
<b>Race/ethnicity</b>						
White	45,817	692 (14.0%)	1626 (17.8%)	3935 (21.1%)	1502 (19.2%)	840 (15.8%)
Black	13,275	94 (11.5%)	253 (14.6%)	734 (15.9%)	419 (15.0%)	469 (14.1%)
Asian/PI	24,179	510 (15.2%)	933 (17.7%)	1953 (20.2%)	731 (20.2%)	402 (17.6%)
Hispanic	38,621	321 (11.5%)	757 (14.3%)	2276 (16.5%)	1292 (15.6%)	1087 (12.9%)
Other/unknown	7,061	88 (11.6%)	236 (17.5%)	535 (19.1%)	225 (18.9%)	143 (15.0%)
<b>Age group, y</b>						
10–12	47,537	295 (5.2%)	628 (7.2%)	1563 (9.5%)	922 (10.7%)	780 (9.6%)
13–15	50,325	741 (18.6%)	1841 (21.7%)	4911 (24.0%)	2155 (22.4%)	1438 (18.5%)
16–17	31,091	669 (22.7%)	1336 (23.9%)	2959 (23.4%)	1092 (20.0%)	723 (16.2%)

Numbers represent N (the number with acne), except for the total numbers column. Percentages represent proportion with acne. Overall differences by BMI were significant ( $P \leq .01$ ,  $\chi^2$  test).  
*BMI*, Body mass index; *PI*, Pacific Islander.



**Fig 1.** The multivariable association of age, race/ethnicity, and weight status with diagnosed acne. Adjusted relative risk and 95% confidence intervals are reported. Body mass index is classified as normal (fifth to <85th percentile), overweight ( $\geq 85$ th to <95th percentile), and obese ( $\geq 95$ th percentile). *BMI*, Body mass index; *PI*, Pacific Islander; *REF*, reference.

subgroups with higher body mass index (BMI).<sup>1,2</sup> A direct association of acne and higher BMI has also been reported in children.<sup>3,4</sup> Snast et al<sup>5</sup> recently reported an inverse association of BMI and acne in Israeli military recruits, with lower odds of

acne as BMI increased. The purpose of our study was to examine the association of BMI and diagnosed acne within a large community-based population of adolescent girls receiving well-child care.

Within Kaiser Permanente Northern California, we identified 128,953 adolescent girls aged 10 to 17 years with a well-child visit during 2012 to 2014. This retrospective study was approved by the institutional review board with a waiver of informed consent. We used measured height and weight to calculate BMI, expressed as BMI percentile. Underweight subjects (BMI less than the fifth percentile) were excluded. Diagnoses of acne (*International Classification of Diseases, Ninth Revision* code 706.1) within 1 year of the visit were ascertained from pediatrics, family medicine, and dermatology clinic visits. The proportion of patients with diagnosed acne was assessed across 5 BMI percentile categories and stratified by race/ethnicity and age group (Table D). The association of BMI and acne, adjusting for race/ethnicity and age group, was examined with log-binomial regression to estimate relative risk (RR) with 95% confidence intervals (CIs).

Among 128,953 adolescent girls (average age  $14.0 \pm 2.3$  years), 18.4% were overweight ( $\geq 85$ th to  $< 95$ th BMI percentile) and 15.8% were obese ( $\geq 95$ th BMI percentile). The overall proportion of individuals with acne was 17.1%. Acne burden was highest in the upper part of normal BMI but was lower in the overweight and obese ranges (Table D). Adjusting for race/ethnicity and age group (Fig 1), BMI in the lower part of normal was associated with significantly lower risk of diagnosed acne (fifth to 25th percentile: RR 0.77, 95% CI 0.73-0.81; 25th to 50th percentile: RR 0.90, 95% CI 0.87-0.93) compared with BMI in the upper part of normal (reference group). BMI above normal was also associated with significantly lower risk of diagnosed acne (RR 0.96, 95% CI 0.93-0.99 [overweight]; RR 0.83, 95% CI 0.80-0.86 [obese]).

Overweight and obese adolescent girls do not appear to have a higher proportion of acne, even adjusted for race/ethnicity and age, compared with girls in the upper part of normal BMI. Patients in the overweight and obese weight groups may have other health issues that take precedence over acne, or overweight and obese adolescents could have biological factors leading to decreased acne. Limitations include a reliance on acne diagnosis codes and a lack of assessment of puberty status, dietary factors, or acne severity. Although diet and hormonal changes may influence acne, obese and overweight girls in our study had lower rates of diagnosed acne than girls with a BMI in the upper part of the normal range. Future studies could examine the relationship of body weight and acne severity, and referral for dermatology care.

Shankar N. Mundluru, MD,<sup>a</sup> Jeanne A. Darbinian, MPH,<sup>b</sup> Nirmala D. Ramalingam, MPP,<sup>c</sup> Joan C. Lo, MD,<sup>a,b,c</sup> and Patrick E. McCleskey, MD<sup>d</sup>

From the Department of Medicine,<sup>a</sup> Graduate Medical Education,<sup>c</sup> and Department of Dermatology,<sup>d</sup> Kaiser Permanente Oakland Medical Center; and Division of Research, Kaiser Permanente Northern California, Oakland, California<sup>b</sup>

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Correspondence to: Patrick E. McCleskey, MD, 3701 Broadway, Oakland, CA 94611

E-mail: [patrick.e.mccleskey@kp.org](mailto:patrick.e.mccleskey@kp.org)

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#### Hair graying may occur early in life in tuberous sclerosis complex and is distinct from poliosis



To the Editor: The literature on hair pigmentary changes in tuberous sclerosis complex (TSC) focuses on poliosis, a white patch of hair that occurs in infancy in about 18% of cases.<sup>1</sup> In one instance, premature hair graying was described in a 15-year-old girl with TSC.<sup>2</sup> We sought to determine the frequency and clinical characteristics of hair pigmentary changes in individuals diagnosed with TSC.