

**Table II.** Statistical analysis of patients involved in the study

Variable	Group with antipain solution (n = 8)	Group without antipain solution (n = 8)	P value
Sex, n (%)			.715
Female	6 (50)	6 (50)	
Male	2 (50)	2 (50)	
Mean age, y (range)	53 (42-61)	54 (39-62)	.925
Average VAS score (SD)	2 ( $\pm$ 1.07)	7.88 ( $\pm$ 0.84)	<.001

For categoric variables, the chi-square test was performed. A paired *t* test was used for numeric variables. There were no statistic differences with regard to age, sex, or site of nail surgery. VAS analysis was statistically significant with <0.001.

Infiltrative anesthesia is the most-used anesthetic procedure for nail surgery. Ropivacaine (an amide anesthetic) gives analgesia for around 8 hours, and triamcinolone decreases the postoperative inflammatory process. However, this type of long-acting anesthetic masks pain due to postoperative complications (compartment syndrome, infections, and ischemia).<sup>4</sup> Although ropivacaine's most common side effect is vasoconstriction, it is no stronger a vasoconstrictor than lidocaine and it is safe to use.<sup>5</sup> The triamcinolone that we used had a concentration of 20 mg/mL and was diluted in 3 parts saline (a 5-mg/mL solution); only 0.5 mL was added with 0.5 mL of long-acting anesthetic. We do not recommend higher doses of steroids, especially with the pinky finger and when doing this procedure in children.

In conclusion, the antipain solution decreases pain after nail surgery. The marked reduction in the patient's pain, as well as the easy application and low profile of side effects of this analgesic technique, warrant its consideration for inclusion in daily practice.

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#### Atopic dermatitis is associated with increased hospitalization in US children



*To the Editor:* Childhood atopic dermatitis (AD) is associated with severe flares and comorbid atopic, mental health, and infectious disorders,<sup>1</sup> which may increase hospitalization risk. A previous study found increased hospitalization in US adults with AD, which were costly.<sup>2</sup> We sought to determine whether childhood AD is associated with increased hospitalizations in the United States; this has important ramifications for risk stratification and resource allocation. We hypothesized that childhood AD was associated with increased hospitalizations.

The 1997-2017 National Health Interview Survey, a US population-based household survey (N = 251,555) was analyzed. One child per household was randomly selected. The 1-year prevalence of AD was determined on the basis of response to the question During the past 12 months, has your child had eczema or any kind of skin allergy? Caregiver report of eczema and skin allergy in children was previously validated.<sup>3</sup> Number of overnight hospitalizations was determined on the basis of response to the question How many different times did your child stay in any hospital overnight or longer during the past 12 months? This study was approved by the institutional review board at Northwestern University.

**Table I.** Associations of hospitalization for atopic dermatitis in US children

Variable	No AD		AD				
	Annual frequency	% (95% CI)	Annual frequency	% (95% CI)	Adjusted OR	95% CI	P value
Age, y, tertile (minimum-maximum)							
1 (0-5)	3598	33.83 (33.61-34.05)	455	38.31 (37.63-38.99)			
2 (6-10)	2758	24.85 (24.65-25.05)	328	26.23 (25.62-26.84)			
3 (11-17)	4415	41.32 (41.09-41.55)	425	35.46 (34.79-36.13)			
Sex							
Male	5556	51.31 (51.07-51.55)	601	49.89 (49.18-50.59)	1.00	—	—
Female	5215	48.69 (48.45-48.93)	606	50.11 (49.41-50.82)	0.95	0.95-0.96	<.0001
Race/ethnicity							
White	7614	77.53 (77.34-77.72)	791	71.02 (70.39-71.64)	1.00	—	—
Black	1630	14.52 (14.35-14.68)	263	20.77 (20.21-21.33)	1.01	1.002-1.012	.01
Asian	516	4.56 (4.46-4.65)	61	4.60 (4.32-4.88)	0.50	0.50-0.51	<.0001
Other/multiple race	468	3.40 (3.32-3.48)	54	3.62 (3.36-3.87)	1.15	1.14-1.16	<.0001
Hispanic origin							
No	7677	80.63 (80.47-80.80)	945	84.33 (83.88-84.79)	1.00	—	—
Yes	3094	19.37 (19.20-19.53)	263	15.67 (15.21-16.13)	1.26	1.26-1.27	<.0001
Outpatient physician interaction in the last year							
No	6179	15.63 (15.43-15.83)	66	9.61 (9.05-10.16)	1.00	—	—
Yes	1273	84.37 (84.16-84.57)	574	90.39 (89.84-90.95)	7.43	7.18-7.68	<.0001
Insurance							
Private	5949	61.02 (60.79-61.25)	660	59.25 (58.57-59.94)	1.00	—	—
Medicaid	2311	19.29 (19.11-19.48)	292	21.98 (21.40-22.55)	1.27	1.27-1.28	<.0001
None	2263	19.69 (19.50-19.87)	240	18.77 (18.23-19.31)	1.18	1.18-1.19	<.0001
Asthma attack/episode in past 12 months							
No	10,281	95.60 (95.50-95.70)	1053	87.83 (87.38-88.28)	1.00	—	—
Yes	475	4.40 (4.30-4.50)	152	12.17 (11.72-12.62)	2.32	2.31-2.34	<.0001
Hay fever and/or respiratory allergy in the past 12 months							
No	10,397	96.65 (96.57-96.74)	1075	89.49 (89.06-89.92)	1.00	—	—
Yes	337	3.34 (3.26-3.43)	123	10.51 (10.08-10.94)	1.15	1.14-1.15	<.0001
Digestive allergy in the past 12 months							
No	10,398	96.42 (96.34-96.51)	1021	84.74 (84.23-85.25)	1.00	—	—
Yes	364	3.57 (3.49-3.66)	182	15.26 (14.75-15.77)	1.35	1.35-1.36	<.0001
Depression in the past 12 months							
Never	6831	83.85 (83.66-84.05)	745	80.19 (79.57-80.81)	1.00	—	—
Sometimes/Often	1349	16.15 (15.95-16.34)	191	19.81 (19.19-20.43)	1.98	1.97-1.99	<.0001

Continued

Table I. Cont'd

Variable	No AD		AD		P value
	Annual frequency	% (95% CI)	Annual frequency	Adjusted OR	
Ever ADD or ADHD					
No	8825	92.65 (92.52-92.78)	962	1.00	—
Yes	641	7.35 (7.22-7.49)	103	1.19	1.18-1.19
Any infection in the past 12 months					
No	11,536	82.62 (81.92-83.33)	1193	1.00	—
Yes	2548	17.38 (16.67-18.08)	448	1.47	1.46-1.48

Missing data were encountered in 135 patients (0.06%) for hospitalization days, in 12,170 (4.8%) for insurance type, in 362 (0.1%) for asthma attack in the past 12 months, in 604 (0.2%) for depression in the past 12 months, in 30,011 (11.9%) for ever having ADD or ADHD, and in 37 (0.01%) for any infection in the past 12 months.

AD, Atopic dermatitis; ADD, attention deficit disorder; ADHD, attention deficit disorder/hyperactivity disorder; CI, confidence interval; OR, odds ratio.

Statistical analyses were performed with SAS software (version 9.4, SAS Institute, Cary, NC) by using survey procedures including sample weights that adjusted for age, sex, race/ethnicity, household size, and highest level of household education. Multivariable logistic regression models invoking stepwise selection were constructed with AD as the dependent variable (yes or no); independent variables included the following: age; sex; race; Hispanic ethnicity; insurance coverage; and history of outpatient physician interaction, hay fever and/or respiratory allergy, digestive allergy, asthma attack, infection and feeling depressed in the past 12 months. Complete data analysis was performed. P values of .05 or less were considered significant.

AD prevalence was 10.4% (95% confidence interval [CI], 10.3-10.6%) across all years, and increased between 1997 (8.0% [95% CI, 7.5-8.4%]) and 2017 (13.6% [95% CI, 12.8-14.4%]). There were 1641 hospitalizations with at least 1 overnight stay, with 239,832 annual hospitalization days in children with AD. Hospitalization rates decreased significantly from 1997 to 2017 in children with AD (from 9.3% to 5.2%) and children without AD (from 8.3% to 5.2%) (P < .001), likely because of national efforts to reduce hospitalization rates. In multivariable logistic regression models, children with versus without AD had significantly higher odds of having 1 or 2 (adjusted odds ratio, 1.17 [95% CI, 1.05-1.30]) and 3 or more (adjusted odds ratio, 1.64 [95% CI, 1.19-2.25]) overnight hospitalizations in the past year.

In logistic regression models of 1 or more overnight hospitalizations invoking stepwise selection, black or other race, Medicaid or no insurance, outpatient physician interaction, asthma attack in the past year, feeling depressed, attention deficit (hyper)activity disorder, hay fever and/or respiratory allergy, digestive allergy, and infection were associated with higher odds of hospitalization in children with AD; female sex, older age, and Asian race were inversely associated with hospitalization (Table I). However, the primary reason for admission and admitting clinician specialty/setting were not assessed.

Childhood AD has a multifactorial association with hospitalizations. A previous study also demonstrated a high inpatient burden of childhood AD and also showed that hospitalization for AD was associated with being nonwhite and having Medicaid.<sup>4</sup> Further studies are needed to determine optimal strategies to prevent hospitalization in children with AD.

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*Dr Silverberg had full access to all the data in the study and takes responsibility for the integrity of the data and accuracy of the data analysis. Dr Silverberg and Dr Hua both take responsibility for the study concept and design, acquisition of data, analysis and interpretation of data, drafting of the article, critical revision of the manuscript for important intellectual content, and statistical analysis. Dr Silverberg obtained funding.*

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### Hair transplant in frontal fibrosing alopecia: A multicenter review of 51 patients



*To the Editor:* Frontal fibrosing alopecia (FFA) is a primary lymphocytic scarring alopecia characterized by a progressive and bilateral recession of the frontotemporal hairline.<sup>1,2</sup> The usefulness of hair transplant (HT) is controversial in these patients.<sup>3,4</sup> The aim of this study was to describe the outcome of HT in a multicenter series of patients in whom FFA had been diagnosed.

A retrospective, multicenter, descriptive, and analytic study was designed. A review of the evolution of patients with a diagnosis of FFA who underwent HT was performed in 1 French and 5 Spanish centers. Patients with a confirmed diagnosis of FFA and at least 2 years of follow-up after the HT were included. The main outcome of success was the survival of the grafts after the HT, as evaluated clinically and by trichoscopy. Patients were also asked at the last visit about their global satisfaction with the procedure.

A total of 51 patients (48 females and 3 males) with a mean age of 54 years (range, 34-79) and a mean grade of severity score of 2.3 out of 5 were included. The HT was done after a mean time of stabilization of the disease of 15 months (range, 0-60). The stabilization was evaluated clinically (no progression of the alopecia on the frontotemporal hairline after 12 months) and by trichoscopy (absence of peripilar casts). The strip technique was performed in 44 patients (86%), and the follicular unit extraction technique was performed in 7 patients (14%). The mean number of transplanted grafts per surgical procedure was 1345 follicular units. The most frequent location of the HT was the temporal area (30 patients [59%]), followed by the frontal area (22 patients, [44%]) and the eyebrows (15 patients [29%]). The patients were followed for a mean of 3.2 years after the HT (range, 2-10). All the patients received medical therapy for FFA after the HT. The mean graft survival rates after 1, 2, 3, and 5 years of follow-up were 87% (n = 51), 71% (n = 51), 60% (n = 38), and 41% (n = 12), respectively (Fig 1). All 12 patients with a follow-up time of at least 5 years after the HT presented with a graft survival rate lower than 60%. There were no differences in graft survival by location or by postsurgical medical therapy. A longer time between stabilization of FFA and surgery was not associated with higher survival of the grafts. Of the 51 patients, 42 (82%) were satisfied with the HT. No significant worsening or reactivation of the disease was detected in any patient.

There are very few reports in the literature showing the outcome of HT in patients with FFA.<sup>3-5</sup> To our knowledge, fewer than 10 such patients have been described. Jiménez et al<sup>4</sup> reported 3 cases with destruction of more than 50% of the grafts 3 years after the HT. On the contrary, Liu et al<sup>5</sup> reported a case in which the majority of the grafts 4 were maintained years after the HT. The authors hypothesized that HT may be useful in patients with FFA if it is performed at least 2 years after clinical remission. Nonetheless, in our study we observed a decrease in graft survival over time independently