Evaluating the Safety of a Novel Gummy Polypodium Leucotomos Supplement in Pediatric Atopic Dermatitis

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Introduction

Polypodium leucotomos (PLE) is a tropical fern extract with established antioxidant, photoprotective, and anti-inflammatory properties. It has demonstrated efficacy in reducing UV-induced erythema, enhancing DNA repair, and mitigating oxidative stress. While PLE is widely used in adult dermatology, limited data exist on its use in pediatric patients.

Objective:
This study evaluates the safety and tolerability of a gummy-based PLE supplement (Inner Glow Sol Defense™) in children with atopic dermatitis.

Methods

Study Design:

- Retrospective chart review of pediatric patients (ages 3-18 years) at 3 outpatient dermatology clinics from July 1, 2023 – Sep. 30, 2024.

Inclusion Criteria:

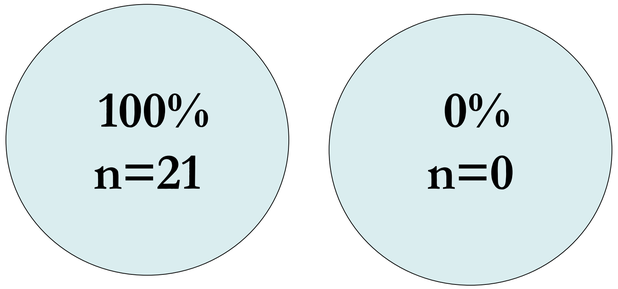
- PLE supplementation recommended by a dermatologist for atopic dermatitis.
- Documented use of Inner Glow Sol Defense at one or more follow-up visits.

Results

Table 1. Participant Demographics (N = 77)

Category	Subcategory	n	%
Age Group	3–6 years	7	33%
	7–10 years	1	5%
	11–14 years	5	24%
	15–18 years	8	38%
Gender	Female	14	66%
	Male	7	33%
Race	White	4	19%
	Asian	9	43%
	Not reported	8	38%

Table 2. Supplementation Outcomes (N = 21)



All Patients Continued Use at >1 Follow-up

No Adverse Effects Reported

Subjective improvements in patients were reported by all 21 caregivers.

- Reductions in itch intensity
- Decreased need for oral antihistamines
- Reduced flare frequency

Concurrent therapies:

- Reported improvements in atopic dermatitis symptoms exceeded those compared to regimens prior to adding gummies (e.g., topical corticosteroids, moisturizers alone).

Follow-up:

- Patients were followed for 1–22 months (median 3 visits, median 18 weeks from last documented visit).

Safety:

- No adverse effects reported.
- Safety maintained even among children exceeding the standard daily dosage under provider supervision (for additional atopic dermatitis management).

Conclusion

Polypodium leucotomos supplementation with Inner Glow Sol Defense gummies was **safe, well tolerated, and highly acceptable** to children and their caregivers. The chewable format supported excellent adherence, making it a practical adjunct for pediatric atopic dermatitis.

Future Directions:
Larger, prospective studies with standardized outcome measures are needed. Further work should define optimal dosing, establish safe age minimums, and compare formulations to assess adherence in children.

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Polypodium Leucotomos Gummy Supplementation in the Pediatric Population: A Retrospective Series Demonstrating Safety and Tolerability

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Objective:
This study evaluates the safety and tolerability of a gummy-based PLE supplement (Inner Glow Sol Defense™) in children.

Methods

Study Design:

- Retrospective chart review of pediatric patients (ages 2-18 years) at 3 outpatient dermatology clinics from July 1, 2023 – Sep. 30, 2024.

Inclusion Criteria:

- PLE supplementation recommended by a dermatologist for any of the following: photoprotection, eczema, vitiligo and polymorphous light eruption (PMLE).
- Documented use of Inner Glow Sol Defense at at least one follow-up visit.

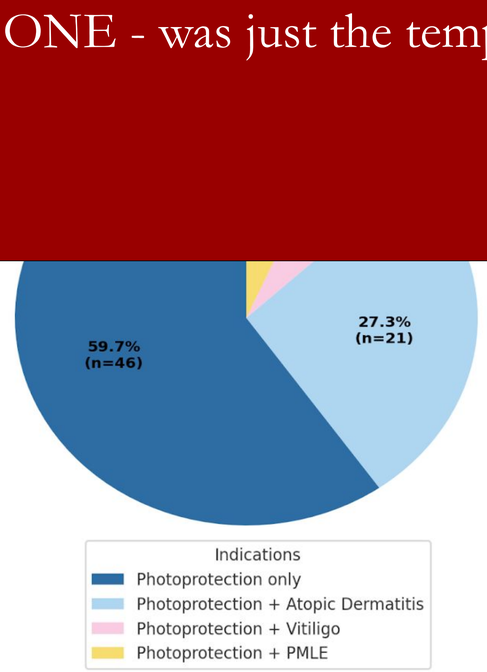

Figure 1. Indications for PLE Supplementation

Table 2. Supplementation Outcomes (N = 77)

Category	Subcategory	n	%
Continued Use	At ≥1 follow-up	77	100.0%
Adverse Effects	Reported	0	0.0%

	10–14 years	19	25%
	14–18 years	37	48%
Gender	Female	50	65%
	Male	27	35%
Race	White	35	46%
	Asian	18	23%
	Not reported	24	31%

Outcomes:
No adverse effects were reported among all patients, including those who consumed higher than standard doses. One-third of children continued use beyond six months, with seasonal pauses common during periods of low sun exposure. Among caregivers surveyed (45%), all reported their children found the gummies easy to take. Caregivers of children with eczema reported improvements in itching and flare frequency, though all patients also received standard therapies. Children with PMLE experienced symptom relief when using PLE alongside sunscreen and, in some cases, antihistamines. Patients using PLE solely for photoprotection noted added benefits despite prior consistent sun protection measures.

Conclusion

leucotomos supplementation with Sol Defense gummies was **safe, ed, and highly acceptable** to their caregivers. The chewable orted excellent adherence, making it a practical option for pediatric photoprotection.

Future Directions:
Larger, prospective studies with standardized outcome measures are needed to confirm efficacy in pediatric inflammatory and immune-mediated dermatoses such as eczema, PMLE, and vitiligo.

References

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