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# Differential modulation of systemic inflammation by Dupilumab across atopic dermatitis phenotypes: real-life data from Florence

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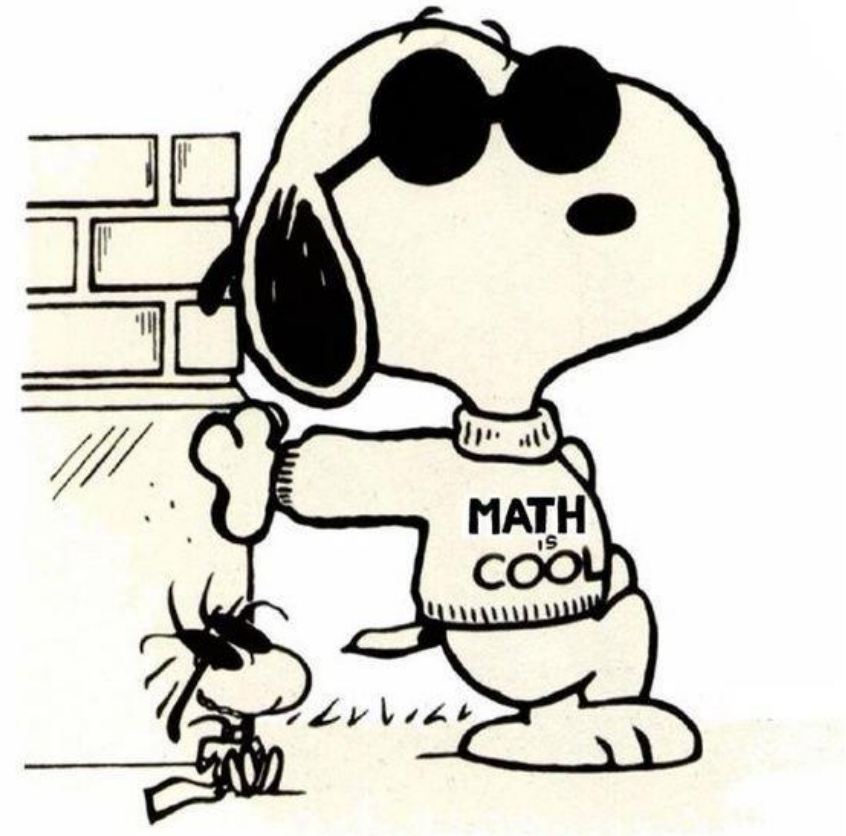
## Learning Objective:

To evaluate longitudinal changes in systemic inflammatory markers (NLR and PLR) in patients with atopic dermatitis treated with dupilumab in a real-world clinical setting.

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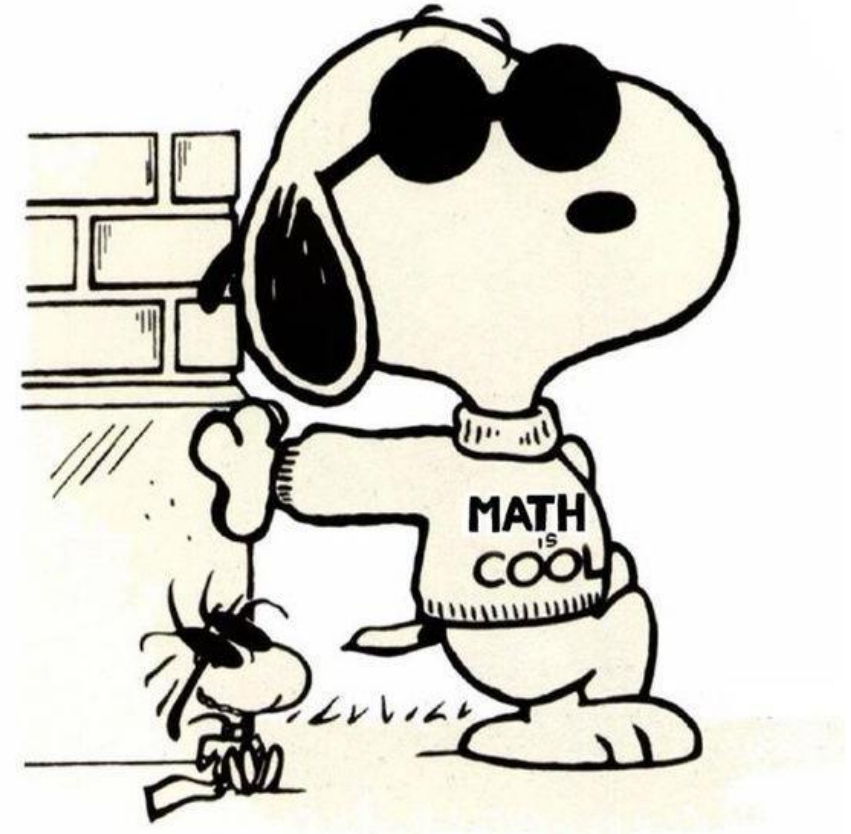
# Introduction

- **NLR** (Neutrophil-to-Lymphocyte Ratio) and **PLR** (Platelet-to-Lymphocyte Ratio) are accessible, cost-effective indices of systemic inflammation.
- Widely used in systemic inflammatory and autoimmune diseases (e.g., RA, SLE, dermatomyositis, IBD).
- In dermatology, **elevated NLR** and **PLR** are reported in **psoriasis**, **psoriatic arthritis**, Behçet's, erythema nodosum, sarcoidosis.
- In psoriasis, **NLR correlates** with **PASI** and is more strongly linked to severity than PLR.
- Both indices may serve as adjunctive tools in **disease and therapy monitoring** and risk stratification.



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**TO ASSESS THE LONGITUDINAL CHANGES IN NLR AND PLR IN AD PATIENTS TREATED WITH DUPILUMAB**

# Methods

## Design:

Retrospective real-life study



## Setting:

Dermatology Unit, University of Florence



## Population:

- 60 adult patients with moderate-to-severe atopic dermatitis
- Treated with Dupilumab



## Phenotypic classification:

- Classical, portrait, hand, erythrodermic, nummular, prurigo-like



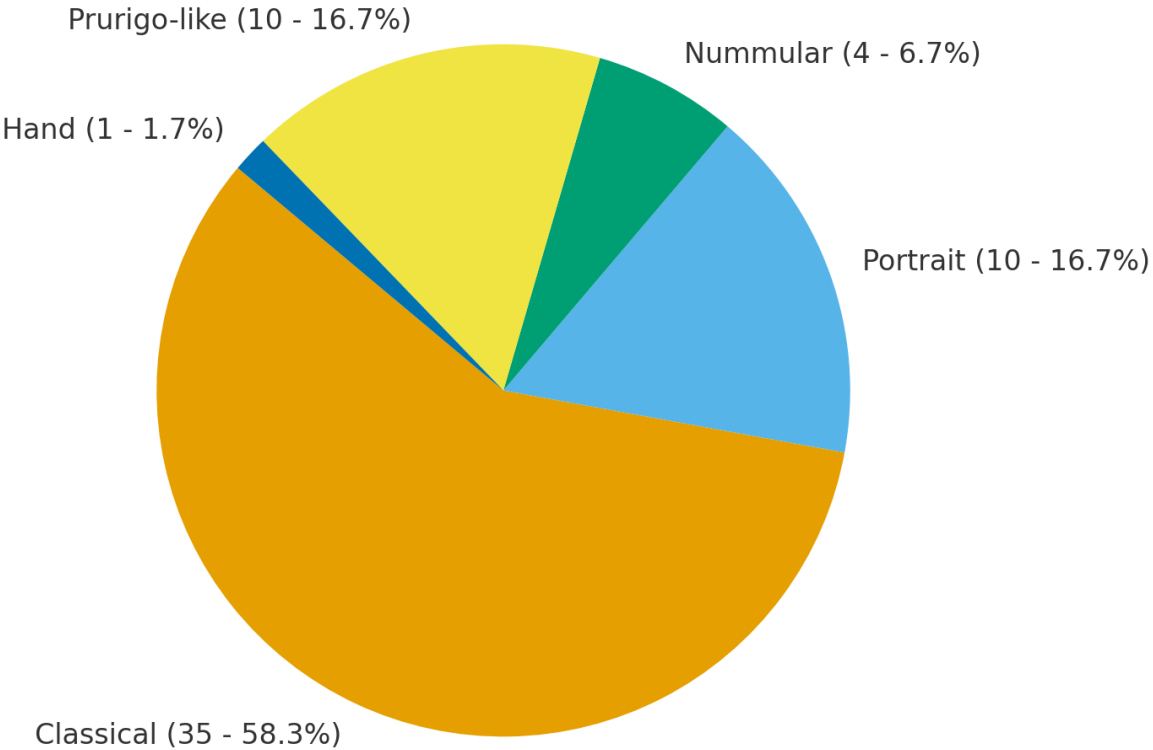
## Data collection and Statistical analysis:

- Clinical scores: EASI, DLQI, pNRS and sNRS
- Inflammatory indices: NLR and PLR calculated at baseline, 16 weeks, and 26 weeks
- Statistical analysis: Friedman test and subgroup comparisons



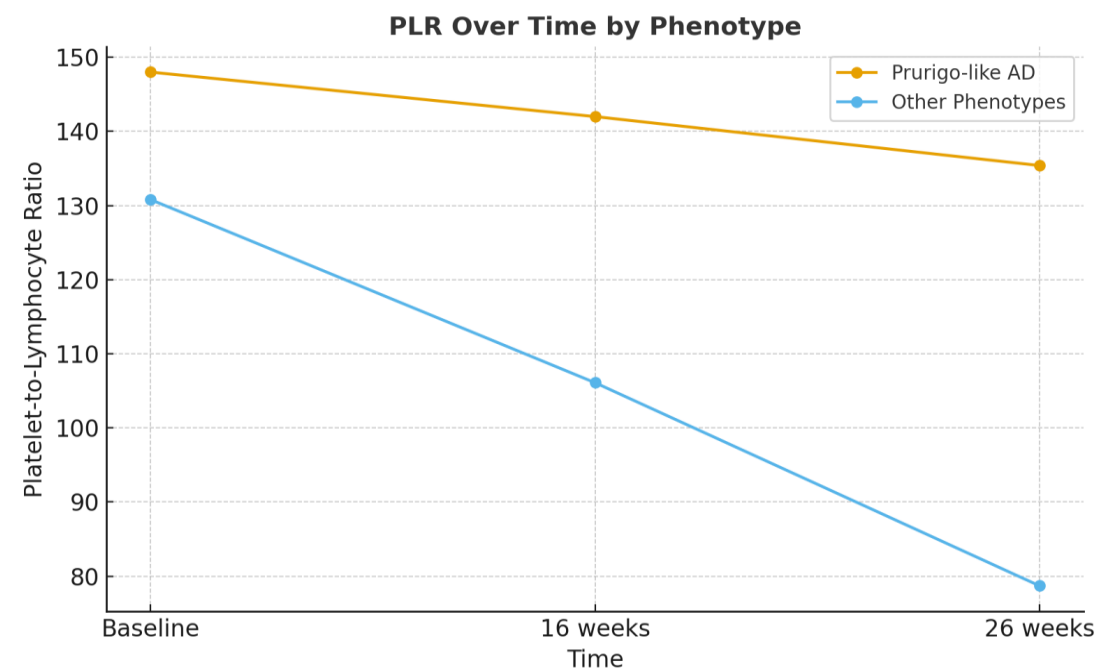
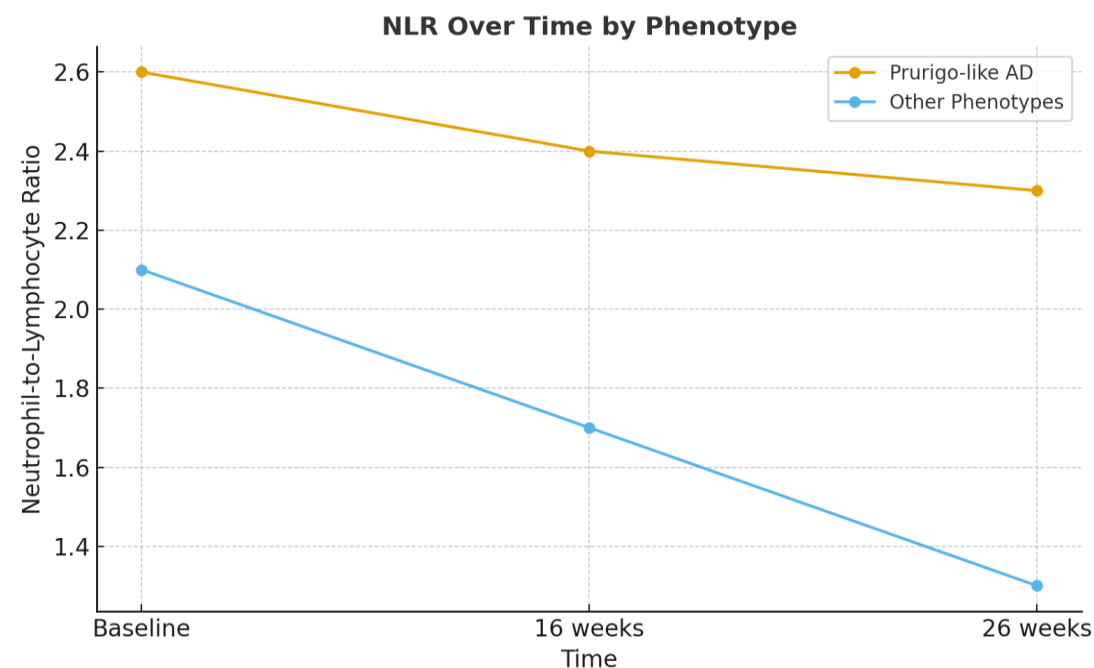
# Results

**Adjusted Phenotype Distribution (n = 60)**



Total Patients	60
Female (n, %)	25 (41.7%)
Male (n, %)	35 (58.3%)
Mean Age (years)	39,5
Mean EASI (baseline)	27,97
Mean Pruritus NRS (baseline)	8,45
Mean Sleep NRS (baseline)	6,02

# Results



Phenotype	NLR (0w)	NLR (16w)	NLR (26w)	PLR (0w)	PLR (16w)	PLR (26w)
All patients	2.2 ± 0.7	1.8 ± 0.5	1.4 ± 0.4	132.2 ± 61.0	108.6 ± 40.5	83.6 ± 30.0
Prurigo-like	2.6 ± 0.6	2.4 ± 0.6	2.3 ± 0.5	148.0 ± 59.0	142.0 ± 50.0	135.4 ± 48.0
Non-prurigo	2.1 ± 0.7	1.7 ± 0.5	1.3 ± 0.3	130.8 ± 62.0	106.1 ± 37.5	78.7 ± 26.2



# Take Home messages:

- Dupilumab significantly reduces NLR and PLR over 26 weeks
- Findings suggest a consistent anti-inflammatory effect in real-life AD patients
- Prurigo-like phenotype showed minimal changes in NLR and PLR
- Systemic inflammation may be modulated differently across AD subtypes
- NLR and PLR may help stratify therapeutic outcomes in clinical practice







# GRAZIE MILLE

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