



ATS Annual Meeting

Is Blood Eosinophil Count A Predictor Of Disease Worsening after ICS Withdrawal?

**H. Watz, H. Magnussen, K.
Tetzlaff, L Gronke, H. Finnigan,
P. M. Calverley**



Rationale:

Eosinophilic inflammation in COPD has been shown to respond to inhaled corticosteroids (ICS), and blood eosinophil count may be a marker or ICS response.

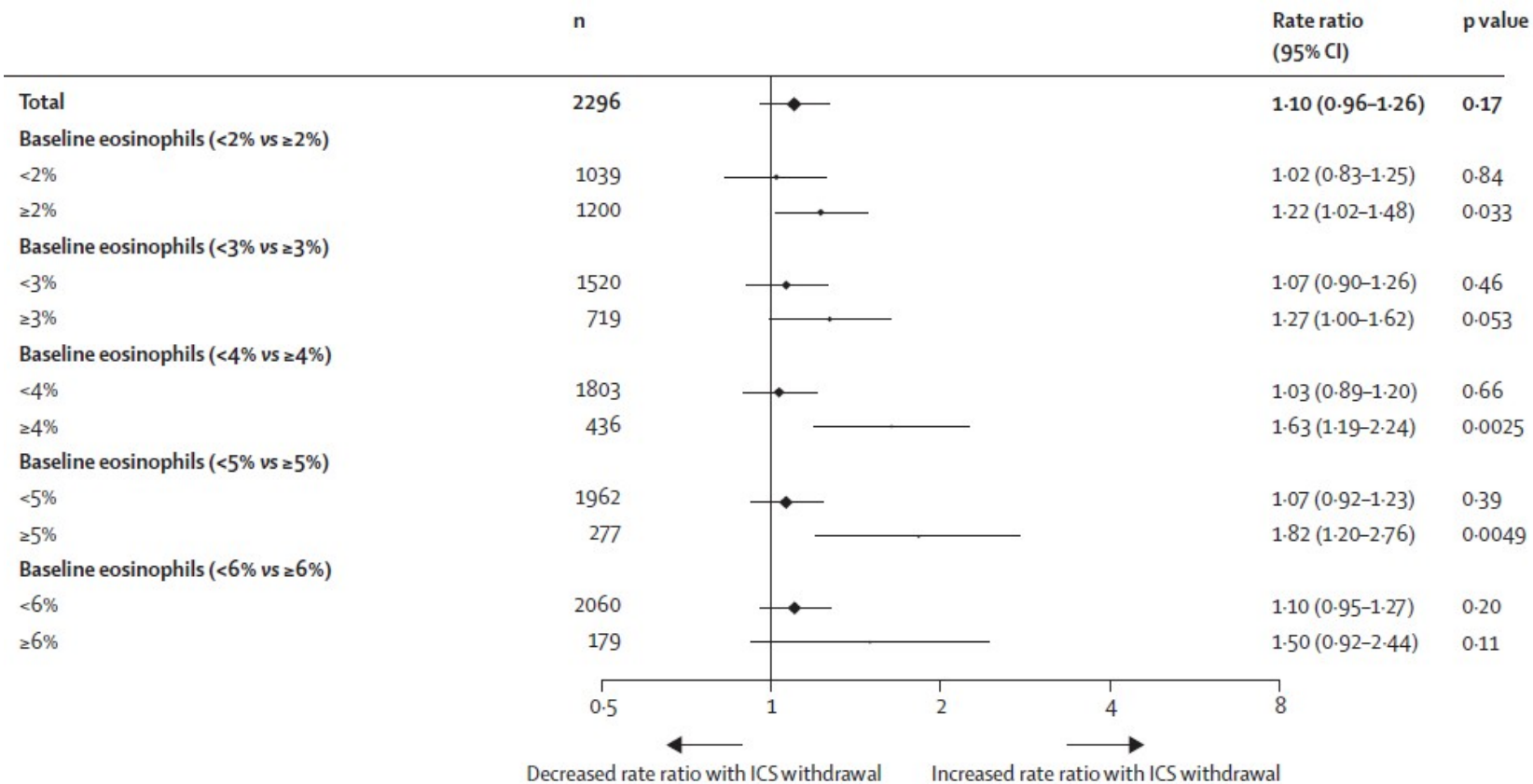
The WISDOM study (NCT00975195) evaluated stepwise ICS withdrawal in patients with severe to very severe COPD and a history of exacerbations. This post hoc analysis investigated whether blood eosinophil counts at screening were associated with a differential response to ICS withdrawal.

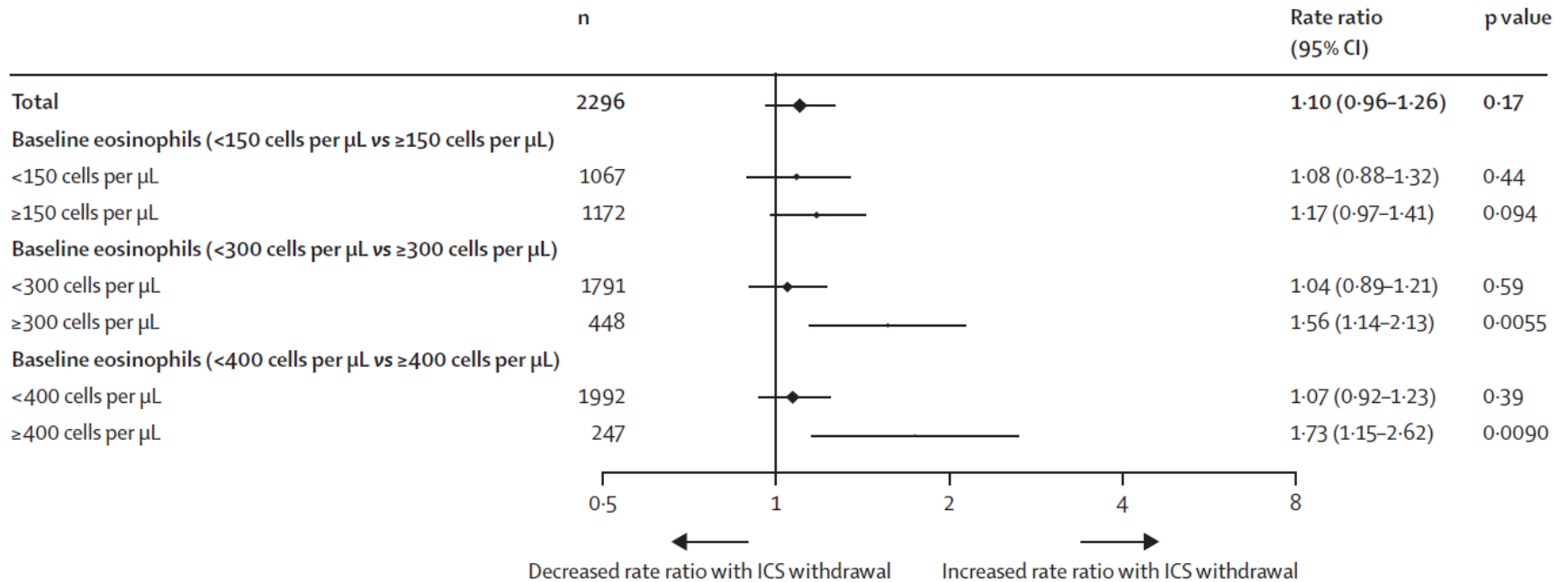


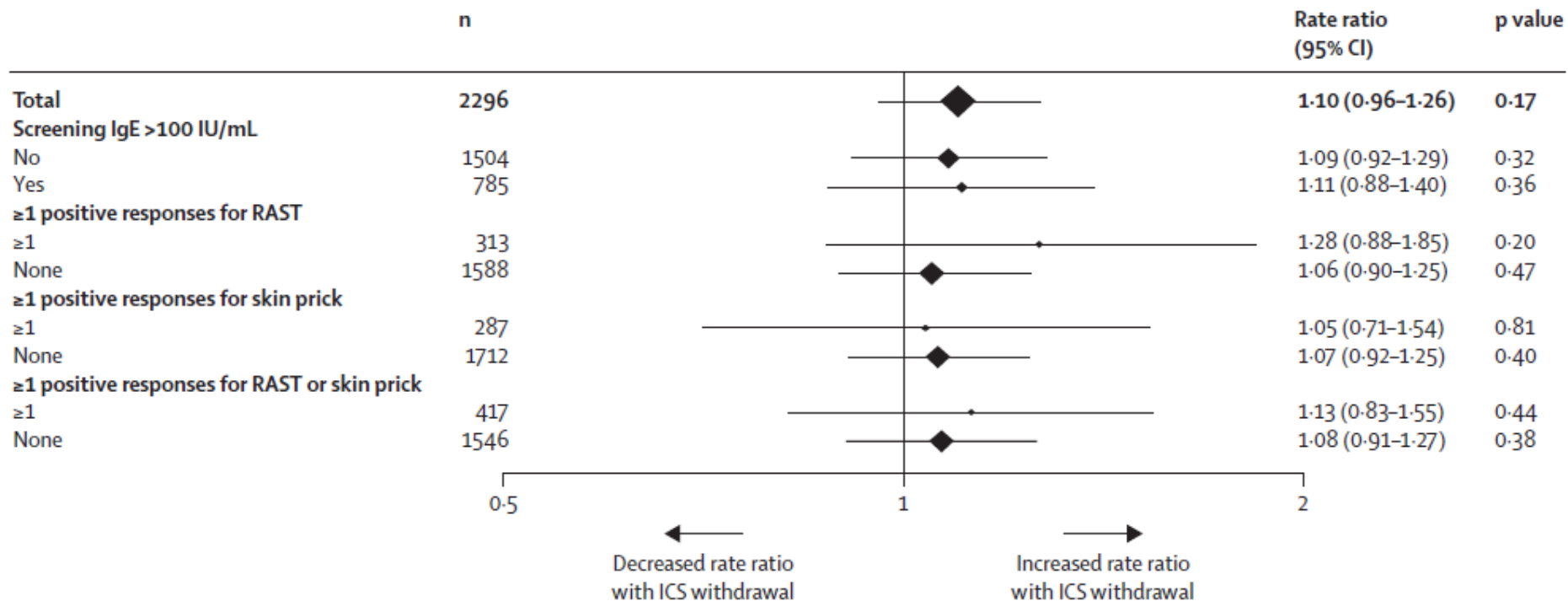
Methods

WISDOM was a 12-month, double blind, parallel-group study. Patients were ≥ 40 years old, current or ex-smokers with a diagnosis of severe or very severe COPD, and ≥ 1 documented exacerbation in the past 12 months. Patients received 18 μg tiotropium, 100 μg salmeterol, and 1000 μg fluticasone propionate triple therapy daily during the 6-week run-in period, followed by ICS continuation or stepwise ICS dose reduction every 6 weeks.

Post hoc subgroup analyses of exacerbation rate ratio (RR) (ICS withdrawal/ICS) and time to first exacerbation, following complete ICS withdrawal, are presented. Subgroups based on a number of screening eosinophil count cut-off levels and atopy were defined. Due to the post hoc nature of the analysis and multiple testing involved, p-values are descriptive only.









CONCLUSIONS

Post hoc subgroup analysis of blood eosinophil counts and atopy in the WISDOM population found that patients with screening eosinophil blood levels $\geq 4\%$ or ≥ 300 cells/ μl had better exacerbation outcomes with continued ICS. However, exacerbation outcomes were not improved with continued ICS in the majority of patients where blood eosinophils were $< 4\%$ or < 300 cells/ μl .