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Characterisation of severe, steroid-dependent asthma patients who initiate biologics versus those who do not

Asthma - management, Severe asthma, Chronic diseases

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Introduction: Information on characteristics of severe asthma patients with high oral corticosteroid exposure (HOCS) initiating biologics is limited.

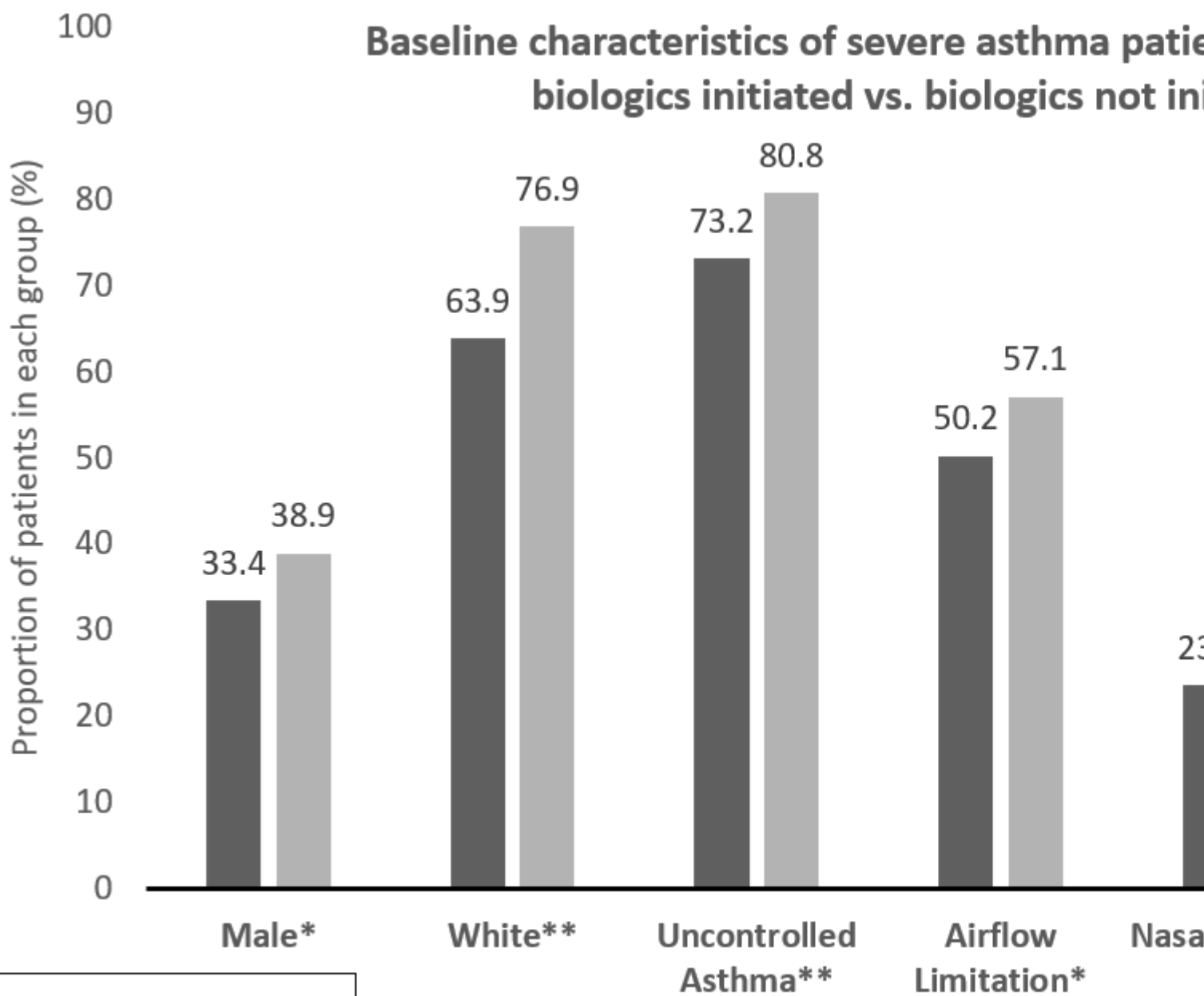
Aim: To compare characteristics of severe asthma patients with HOCS based on biologic initiation.

Methods: Profiles of patients with HOCS (≥ 1 -year long-term OCS therapy, or ≥ 4 courses of steroid bursts in a year) from the International Severe Asthma Registry (ISAR), who initiated or did not initiate biologics (anti-IgE, anti-IL5/anti-IL5R or anti-IL4R) were compared at biologic initiation or registry enrolment.

Results: Between May 2015 and January 2021, 13.3% (1412) of 10606 patients from 19 countries had HOCS. Of whom, 996 initiated biologics and 416 did not. Patients initiating biologics were more likely to be male, White, eosinophilic (via a new Eosinophilic Phenotype Classification; Perez-de-Llano L, et al. AJRCCM 2020;201: A4525), had greater airflow limitation (post-bronchodilator FEV1/FVC ratio <0.7), nasal polyps, positive serum allergen tests and uncontrolled asthma (Figure). Biologic initiators were younger at baseline (51.6 vs. 53.2 years) but both groups had similar annual asthma exacerbations rates (5.7 vs 5.3, $p=0.14$).

Conclusions: HOCS patients have different baseline characteristics based on biologic initiation. Future biologic comparative effectiveness research should account for these differences.

Baseline characteristics of severe asthma patients who initiated biologics vs. those who did not



*Indicates $p < 0.05$

**Indicates $p < 0.001$

■ Did not initiate Biologics

■ Initiated Biologics