

## Reacciones adversas a biotecnológicos dirigidos a IL-5

### Adverse reactions to biotechnological agents targeting IL-5

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#### Resumen

**Reporte de caso:** Mujer de 24 años, con asma(2013) y rinitis alérgica(2014), tratada con inmunoterapia subcutánea durante 3 años, salmeterol/fluticasona inhalado y antihistamínicos por unidad externa. Acude a nuestro servicio (2019), a su ingreso persiste con descontrol de asma, uso diario de inhalador de rescate y rinitis moderada-grave persistente. Se ajusta tratamiento de asma de acuerdo a guías alcanzando paso 4 de tratamiento, persistiendo descontrol (ACT 16 puntos), cumpliendo criterios para inicio de Benralizumab 30 mg (26/7/2024), completando dos aplicaciones con mejoría clínica(ACT), sin embargo, durante dos dosis cursó con fiebre, cefalea, mialgias y artralgias por lo que se suspende tratamiento, con empeoramiento de los síntomas, se decide cambio de biotecnológico a mepolizumab(04/02/25), con efectos adversos a tercera dosis.

**Conclusión:** Un porcentaje de pacientes con asma cursara con cuadro grave, el 80% con fenotipo eosinofílico, asociado a difícil control y aumento de exacerbaciones. En estos pacientes los anticuerpos monoclonales están indicados. Benralizumab dirigido a IL-5R $\alpha$ , induce depleción de eosinófilos a través de citotoxicidad mediada por anticuerpos. Se han realizado diversos estudios(MELTEMI) para evaluar la seguridad de su uso a largo plazo, dentro de los efectos adversos no graves más comunes se encuentran infección viral de vías respiratorias superiores(47.3), mientras los efectos adversos menos frecuentes son cefalea y las artralgias representan un 20.9% y 6.4%. Biotecnológicos reducen exacerbaciones, reduce el uso de corticosteroides, mejora el control y calidad de vida, sin embargo no están exentos de generar efectos adversos, inclusive los menos frecuentes se deben identificar para valorar continuar tratamiento.

**Palabras clave:** Asma; Benralizumab; Mepolizumab.

#### Abstract

**Case report:** A 24-year-old woman with asthma (2013) and allergic rhinitis (2014) was treated for 3 years with subcutaneous immunotherapy, inhaled salmeterol/fluticasone, and external antihistamines. She presented to our department (2019). Upon admission, her asthma persisted with uncontrolled asthma, daily use of a rescue inhaler, and persistent moderate-severe rhinitis. Asthma treatment was adjusted according to guidelines, reaching step 4 of treatment, with persistent lack of control (ACT 16 points), meeting criteria for starting Benralizumab 30 mg (July 26, 2024). Two doses were completed with clinical improvement (ACT). However, during two doses, the patient presented with fever, headache, myalgia, and arthralgia, so treatment was discontinued. Symptoms worsened. A decision was made to switch from the biotechnological agent to mepolizumab (February 4, 2025), with adverse effects after the third dose.

**Conclusion:** A percentage of patients with asthma presented with severe symptoms, 80% with an eosinophilic phenotype, associated with difficult control and increased exacerbations. Monoclonal antibodies are indicated in these patients. Benralizumab, which targets IL-5R $\alpha$ , induces eosinophil depletion through antibody-mediated cytotoxicity. Several studies (MELTEMI) have been conducted to evaluate the safety of long-term use. The most common non-serious adverse effects include upper respiratory tract viral infections (47.3%), while less common adverse effects are headache and arthralgia, which account for 20.9% and 6.4%. Biotechnological agents reduce exacerbations, reduce corticosteroid use, and improve control and quality of life. However, they are not exempt from adverse effects, and even the less common ones should be identified to assess continued treatment.

**Keywords:** Asthma; Benralizumab; Mepolizumab.