



## P-59 - EFFECT OF THE HLA-DQA1\*05 ALLELE ON THE EFFICACY OF USTEKINUMAB IN PATIENTS WITH CROHN'S DISEASE. MULTICENTER STUDY BASED ON THE ENEIDA REGISTRY OF GETECCU

Jordi Guardiola<sup>1</sup>, Katja Serra<sup>1</sup>, Marisa Iborra<sup>2</sup>, Ariadna Padró<sup>21</sup>, Luisa de la Peña<sup>1</sup>, Agnes Fernandez<sup>3</sup>, Francisco Mesonero<sup>4</sup>, Carlos González-Muñoz<sup>5</sup>, Rocio Ferreiro-Iglesias<sup>6</sup>, Pablo Navarro<sup>7</sup>, Montserrat Rivero<sup>8</sup>, Albert Martín-Cardona<sup>9</sup>, Beatriz Sicilia<sup>10</sup>, Monica Sierra-Ausin<sup>11</sup>, Xavier Calvet<sup>12</sup>, Joaquin Hinojosa<sup>13</sup>, Eva Iglesias-Flores<sup>14</sup>, Lucia Marquez<sup>15</sup>, Maria Dolores Martín-Arranz<sup>16</sup>, Ruth de Francisco<sup>17</sup>, Fiorela Cañete<sup>18</sup>, Ana Gutiérrez<sup>19</sup>, Santiago García-López<sup>20</sup>, Eugèni Domènech<sup>18</sup>, Pilar Nos<sup>2</sup>, Sabino Riestra<sup>17</sup>, Maia Bosca-Watts<sup>7</sup>, Yamile Zabana<sup>9</sup>, Beatriz Castro<sup>22</sup>, Manuel Barreiro<sup>6</sup>, Esther García-Planella<sup>5</sup>, Elena Ricart<sup>3</sup>, Gerard Surís<sup>1</sup>, Alexandra Ruiz-Cerulla<sup>1</sup>, Lorena Rodríguez-Alonso<sup>1</sup>, Judit Orobítz<sup>1</sup> and Francisco Rodríguez-Moranta<sup>1</sup>

<sup>1</sup>Hospital Universitari de Bellvitge, Gastroenterologia, Hospitalet de Llobregat. <sup>2</sup>Hospital Universitario y Politécnico La Fe, Valencia. <sup>3</sup>Hospital Clínic de Barcelona. <sup>4</sup>Hospital Ramón y Cajal, Madrid. <sup>5</sup>Hospital Santa Creu i Sant Pau, Barcelona. <sup>6</sup>Hospital Clínico Universitario de Santiago de Compostela. <sup>7</sup>Hospital Clínico Universitario de Valencia. <sup>8</sup>Hospital Universitario Marqués de Valdecilla, Santander. <sup>9</sup>Hospital Mutua de Terrassa. <sup>10</sup>Hospital Universitario de Burgos. <sup>11</sup>Complejo Asistencial Universitario de León. <sup>12</sup>Corporació Sanitaria Parc Taulí de Sabadell. <sup>13</sup>Hospital de Manises. <sup>14</sup>Hospital Universitario Reina Sofía, Córdoba. <sup>15</sup>Hospital Parc de Salut Mar, Barcelona. <sup>16</sup>Hospital Universitario La Paz, Madrid. <sup>17</sup>Hospital Central de Asturias, Oviedo. <sup>18</sup>Hospital Germans Trias i Pujol, Badalona. <sup>19</sup>Hospital General de Alicante. <sup>20</sup>Hospital Miguel Servet, Zaragoza. <sup>21</sup>Hospital Universitari de Bellvitge, Genética molecular Laboratori clínic, Hospitalet de Llobregat. <sup>22</sup>Hospital Marques de Valdecilla, Santander.

### Resumen

**Introduction:** HLA-DQA1\*05 carriage is associated with the development of anti-drug antibodies and loss of response (LOR) to tumor necrosis factor antagonists (anti-TNF) in patients with inflammatory bowel diseases (IBD) (Sazonovs *et al.* Gastroenterology 2020). Ustekinumab has shown very low rates of immunogenicity and presumably will not be affected by this risk. Identifying patients at high risk of treatment failure would be important when selecting therapy for IBD.

**Objectives:** AIM: The objective of this analysis was to investigate the relationship between the HLA-DQA1\*05 allele and ustekinumab on development of LOR and drug persistency.

**Methods:** This is a retrospective cohort study from a prospectively maintained ENEIDA registry. LOR was defined as recurrence or worsening of IBD related symptoms that required a change or intensification in treatment, hospitalization or surgery. Independent predictors of LOR were identified using univariate and multivariable Cox proportional hazard regression. The HLA-DQA1\*05 allele was determined from a saliva sample (kit OGD-600 de DNA Genotek Oragene) and DNA extraction with the Maxwell<sup>®</sup> RSC-Stabilized Saliva DNA kits.

**Results:** 204 patients with Crohn's disease were included. Previous exposure to biological drugs was 96% (61% >= 2 biological drugs). Basal fecal calprotectin levels were  $907 \pm 970$  µg/g and PCR levels  $16.2 \pm 25$  mg/dL. The median follow-up was  $417 \pm 154$  days. During this period, 25%, 16% and 13% of the patients required drug intensification, hospitalization or surgery, respectively. 43% of the patients included were carriers of one or two copies of the HLA-DQA1\*05 allele. The presence/absence of this allele was not associated with LOR to ustekinumab (20 vs. 16%,  $p = ns$ ) nor with drug withdrawal (11 vs. 6%,  $p = ns$ ). In

the multivariate analysis (Cox regression), only the number of previous biological drugs was associated with ustekinumab persistency.

**Conclusions:** The presence of the HLA-DQA1\*05 allele is not related to LOR or persistency of ustekinumab treatment. First-line treatment with ustekinumab rather than anti-TNF agents may be considered in HLA-DQA1\*05-positive patients, particularly when the use of a concomitant immunosuppressant is contraindicated.