EMICIZUMAB IN ACQUIRED HAEMOPHILIA TYPE A: A CASE REPORT

J. ESQUIVEL NEGRÍN1®, P. JOY CARMONA1, A. MARTÍN LÓPEZ1, M.Á. OCAÑA GÓMEZ1®, M. RÍOS DE PAZ2, M.D. DE DIOS GARCÍA2, B. DEL ROSARIO GARCÍA1, E.G. FERNÁNDEZ LÓPEZ1, T. BETANCOR GARCÍA1, J. MERINO ALONSO1

1HOSPITAL UNIVERSITARIO NUESTRA SEÑORA DE CANDELARIA, SERVICIO DE FARMACIA, SANTA CRUZ DE TENERIFE, SPAIN
2HOSPITAL UNIVERSITARIO NUESTRA SEÑORA DE CANDELARIA, SERVICIO DE HEMATOLOGÍA, SANTA CRUZ DE TENERIFE, SPAIN

BACKGROUND AND IMPORTANCE
• Acquired haemophilia A is a coagulation disorder in which antibodies against factor VIII are produced, interfering with its activity and leading to potentially severe bleeding. Among numerous causes, cancer is a prevailing one.
• First-line hemostatic treatment until inhibitor eradication consists of bypass agents, including recombinant factor VII activated (rFVIIa) or activated prothrombin complex concentrates (aPCC).

AIM AND OBJECTIVES
We present the case of a 70-year-old male patient diagnosed with metastatic prostate cancer who went to the emergency department of a tertiary referral hospital due to an acute-onset extensive hematoma on the right thigh, with neither personal nor family history of haemophilia.

MATERIAL AND METHODS
• The patient was diagnosed with paraneoplastic acquired haemophilia and received immunosuppressive (methylprednisolone+cyclophosphamide) and hemostatic (rFVIIa at 5mg/8h) treatment.
• 9 days in, off-label use of emicizumab was requested, intended to guarantee a hemostatic level that would allow outpatient management.
• Haemostatic was monitored daily during hospitalization and weekly after discharge through determination of inhibitor activity (Bethesda Units, UB) and FVIII activity (bovine based Chromogenic Factor VIII assay, UI) in blood samples.

RESULTS
The patient was successfully treated until the resolution of bleeding and normalized FVIII levels.

<table>
<thead>
<tr>
<th>Hemostatic agent</th>
<th>Emicizumab</th>
<th>rFVIIa at 5mg/12h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrations</td>
<td>8 SC injections</td>
<td>214 IV infusions</td>
</tr>
<tr>
<td>Direct cost</td>
<td>€51,255.20</td>
<td>€618,301.64</td>
</tr>
<tr>
<td>Savings</td>
<td>€567,046.44</td>
<td>–</td>
</tr>
</tbody>
</table>

Table I. Comparison of hemostatic agents (during 107 days of Emicizumab monotherapy).

• Other contributing factors to overheads: prolonged hospital stay, expenditure on consumables or staffing.
• Also risk of vascular access complications and quality of life must be considered.

CONCLUSION AND RELEVANCE
1. Emicizumab has been a safe and cost-effective alternative to rFVIIa in hemorrhage prophylaxis, reducing direct costs by more than 10 times and allowed outpatient management.
2. Self-administration at home represents a major improvement in acquired haemophilia A quality of life.
3. Hospital pharmacy and hematology must collaborate to achieve a rational use of resources and an improvement in quality of life.

Contact: jesqegg@gobiernodecanarias.org, mocania@gmail.com
No conflict of interest