**OBJECTIVES**

- The long-acting C.E.R.A. is useful in non-dialysis CKD because it allows the reduction of s.c. injections.
- Non-dialysis CKD patients, efficacy of C.E.R.A. has been formally evaluated exclusively in ESA-naive patients 1, 2.
- The only evidence of efficacy of switching from other ESAs to C.E.R.A. is represented by our recent pilot study in which 40 patients treated with low dose darbepoetin were efficaciously converted to low dose C.E.R.A. 2.
- Whether conversion to low dose C.E.R.A. is effective independently from the type of ESAs previously administered and their dosage remains unknown.

**METHODS**

**INCLUSION CRITERIA**

- Consecutive adult patients with CKD stage 3-5 (non-dialysis non-transplant), attending Nephrology clinics from 2 to 6 months.
- Treatment with subcutaneous darbepoetin (DA) or epoetin (EPO) at a dose unchanged in the previous 3 months.

**EXCLUSION CRITERIA**

- Transfusion of red blood cells in the previous 2 months.
- Either myocardial infarction or stroke or unstable coronary artery disease in the previous 3 months.
- Severe diseases (congestive heart failure, cirrhosis, active malignant disease).
- Acute or chronic bleeding, hemolysis, hemoglobinopathies.
- Uncontrolled or symptomatic secondary hyperparathyroidism (PTH>500 pg/ml).

In multivariate analyses EPO and DA are represented together using a conversion factor of 200:1.

**RESULTS**

- **Table 2**: Demographic and clinical characteristics of patients (n=127)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>72.4 (12.7)</td>
</tr>
<tr>
<td>Inulin clearance (mL/min)</td>
<td>73 (21)</td>
</tr>
<tr>
<td>Initiation of dialysis (months)</td>
<td>5 (1)</td>
</tr>
</tbody>
</table>

- **Table 3**: Clinical and laboratory parameters during the study

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Pre-ERD (n=80)</th>
<th>Post-ERD (n=85)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hemoglobin (g/dL)</td>
<td>11.6 (1.4)</td>
<td>11.5 (1.4)</td>
<td>0.65</td>
</tr>
<tr>
<td>Ferritin (ng/mL)</td>
<td>120 (150)</td>
<td>120 (150)</td>
<td>0.65</td>
</tr>
<tr>
<td>25-OH vitamin D (ng/mL)</td>
<td>30 (50)</td>
<td>30 (50)</td>
<td>0.65</td>
</tr>
</tbody>
</table>

- **Table 4**: Significant predictors of baseline of changes in BMI and C.E.R.A. dose during the study; linear model for BMI changes (P<0.05).

**CONCLUSIONS**

In non-dialysis CKD patients regularly followed in Italian renal clinics and treated with short- and medium-acting ESA:

1. Conversion to long-acting C.E.R.A. increases Hb levels in the absence of side effects.
2. Hb increase during C.E.R.A. is greater in patients receiving ESAs at extended dosing intervals before the switch.
3. Dosing interval should be considered at the time of conversion due to its potential impact on the risk of Hb overshooting.

**REFERENCES**