A716 - Do curative intravenous immunoglobulin therapy improve outcome in the treatment of infections in chronic lymphoid leukemia?

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Introduction:
Hypogammaglobulinemia[1] is one of the important predisposing factor for infection in chronic lymphoid leukemia (CLL) and to prevent it, needs usually the prophylactic administration of immunoglobulins. Nevertheless, intravenous immunoglobulins (IVIg) as curative treatment[2] was never well evaluated in these patients. So the objective of our study was to analyze the mortality and the morbidity of 30 patients with CLL admitted in an university hospital ICU for severe pulmonary infections and receiving or not administration of IVIg as curative treatment.

Methods:
We conducted a prospective observational study from april 2018 to april 2020 and selected 30 patients with early diagnosed and untreated CLL. Patients were 75+-10 years old and were mechanically ventilated for severe pneumococci bilateral pulmonary infections. We divided the patients in two groups: A first group (experimental group) of 15 patients received IVIg 1g/kg associated with antibiotics on the first day of the diagnosis of bacterial pneumonia and a second group (control group) of 15 patients received placebo and antibiotics. In each group, we performed a dosage of IgG before and one week after the administration of IVIg.

Results:
Before IVIg, the level of IgG was in the normal range (8g/l) in the two groups. One week after IVIg, in the experimental group, the level was significantly higher than in the control (ctrl) group (14.73+-1.16 VS 8.00+-1.25g/l) P<0.0001
Duration of mechanical ventilation was shorter in the experimental group than in the ctrl group. (10.4+-1.40 VS 17.2+-1.56days) p<0.001
Septic shock occurred less frequently in the experimental group than in the ctrl group (5VS11 patients)
Mortality rate was significantly lower in the experimental group than in the ctrl group. (47% VS 80%)

Conclusion:
A large prospective randomized clinical trial is needed to confirm the curative effect of IVIg for infections in patients with LLC.

References:
2. Tsiodras et al. Mayo Clinic Proceedings. 75,10 , 2000

Table:

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<tr>
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<th>experimental group</th>
<th>control group</th>
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<tr>
<td>Dosage IgG T7 days. G/L</td>
<td>14.73 1.16</td>
<td>8.00 1.25</td>
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<tr>
<td>Duration mechanical ventilation/days</td>
<td>10.4 1.40</td>
<td>17.2 1.56</td>
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Dosage of IgG and duration of mechanical ventilation in experimental and control group.