DESCRIPTION OF INMMUNOGLOBULIN REPLACEMENT THERAPY IN MULTIPLE MYELOMA PATIENTS WITH ANTI-BCMA CART

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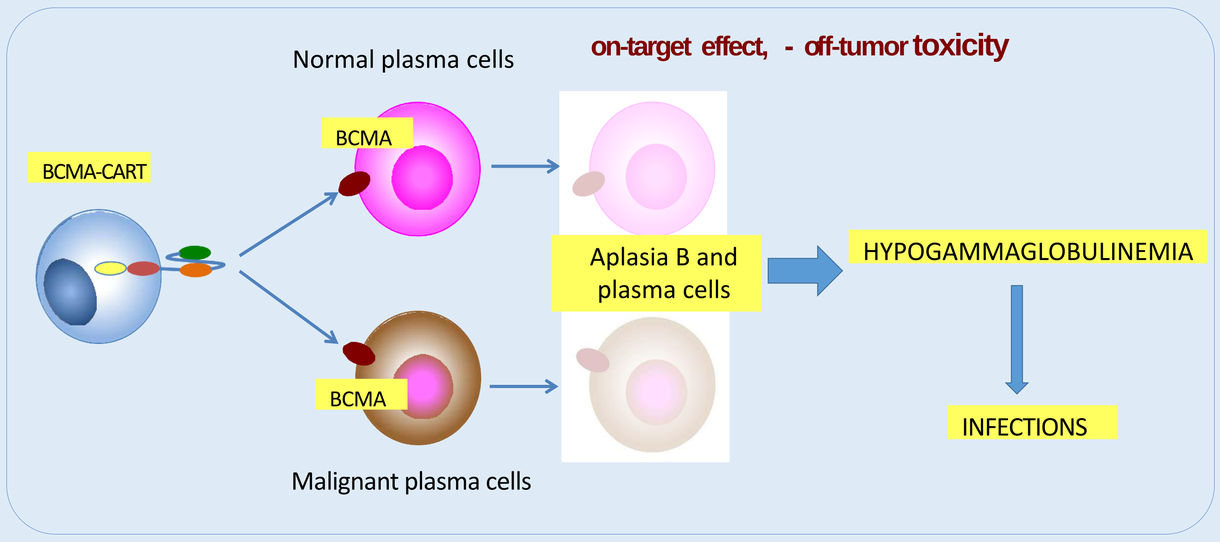
Background and importance:

The treatment of Multiple Myeloma (MM) with anti-BCMA CAR-T leads to a deficit and dysfunctionality of normal plasma cells that manifests as hypogammaglobulinemia and an increase in infections risk.



ANTI-INFECTIOUS PROPHYLAXIS

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REPLACEMENT THERAPY WITH INTRAVENOUS POLYCLONAL INMUNOGLOBULINS (IgRT)

Aim and objectives:

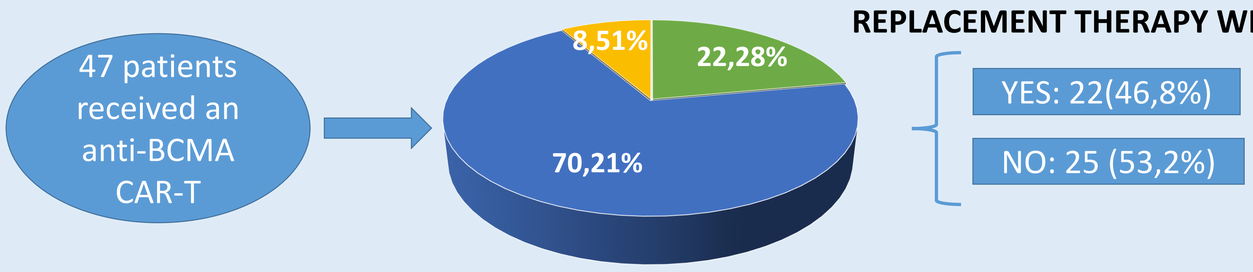
Describe the use of Immunoglobulins (IgG) in patients with hypogammaglobulinemia who have received anti-BCMA CAR-T therapy (ide-cel, cilta-cel, ARI0002) for the treatment of MM in a clinical trial or as compassionate use.

Materials and methods:

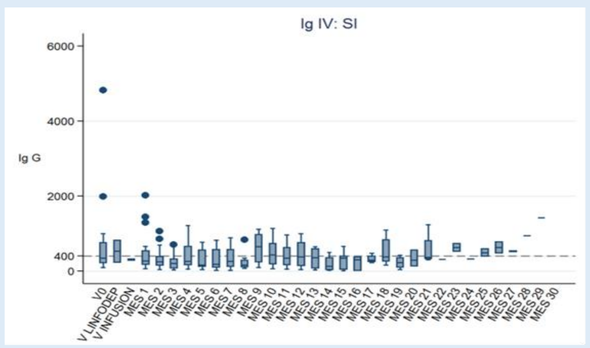
- ❑ Single-center
- ❑ Observational, retrospective
- ❑ An institutional review board (IRB) approved the study.

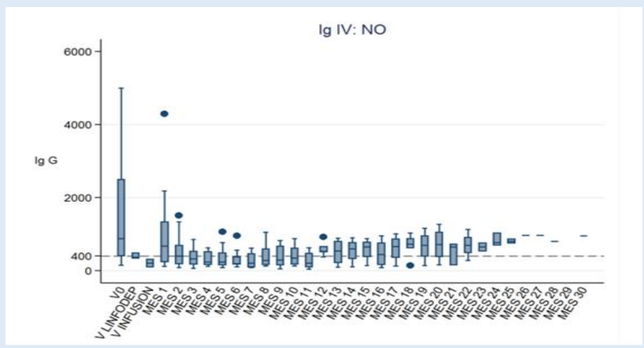
*Hypogammaglobulinemia → IgG levels < 400 mg/dL, or any IgG level along with infectious events that require treatment with immunoglobulins.

Results:

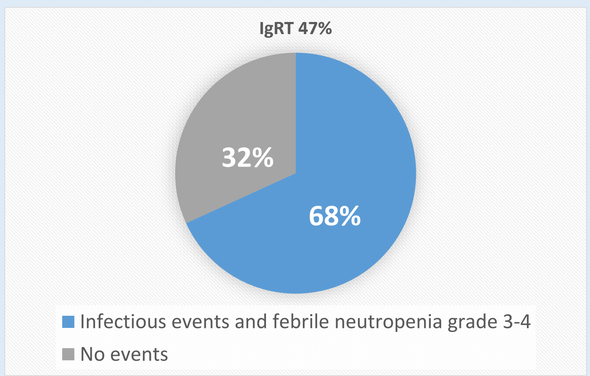


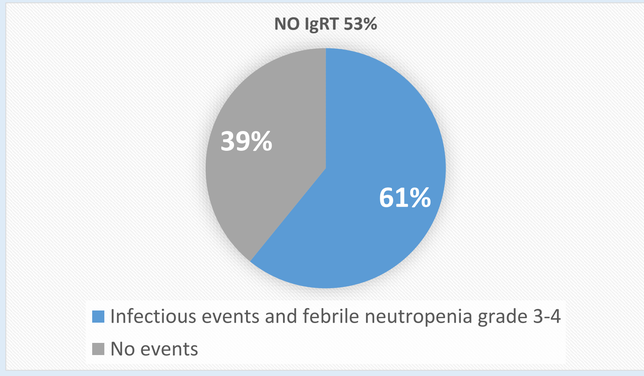
Changes in IgG levels after CAR-T infusión in patients who have (right) and have NOT (left) recibed IgRT:





Rate of infectious events and febrile neutropenia grade 3-4 :





- ❑ **Plasma IgG levels decreased** progressively over time (median nadir month 7= 208 mg/ dL (range 100-465) presenting a recovery around the eighth month post-infusión
- ❑ In the patients who receibed IgRT, the median time until the **start of treatment** was 123 days (range: 69 to 799)
- ❑ The rate of **infectious events and febrile neutropenia grade 3-4** was 68.18% (15/22) in patients who received IgRT and 56% (14/25) in patients who did not receive IgRT (p=0.391)

Conclusion and relevance:

- ❑ These results reveal a **period of hypogammaglobulinemia** after anti-BCMA CAR T-cell therapy.
- ❑ The role and when to begin IgRT needs further exploration, as in this study has **not improved the rate of grade 3-4 infectious events** in patients who received it.