

5PSQ-017: IMMUNE-MEDIATED ADVERSE EFFECTS OF CHIMERIC ANTIGEN RECEPTOR T CELLS (CAR-T) THERAPY IN REAL LIFE POPULATION: WE CONTINUE TO LEARN

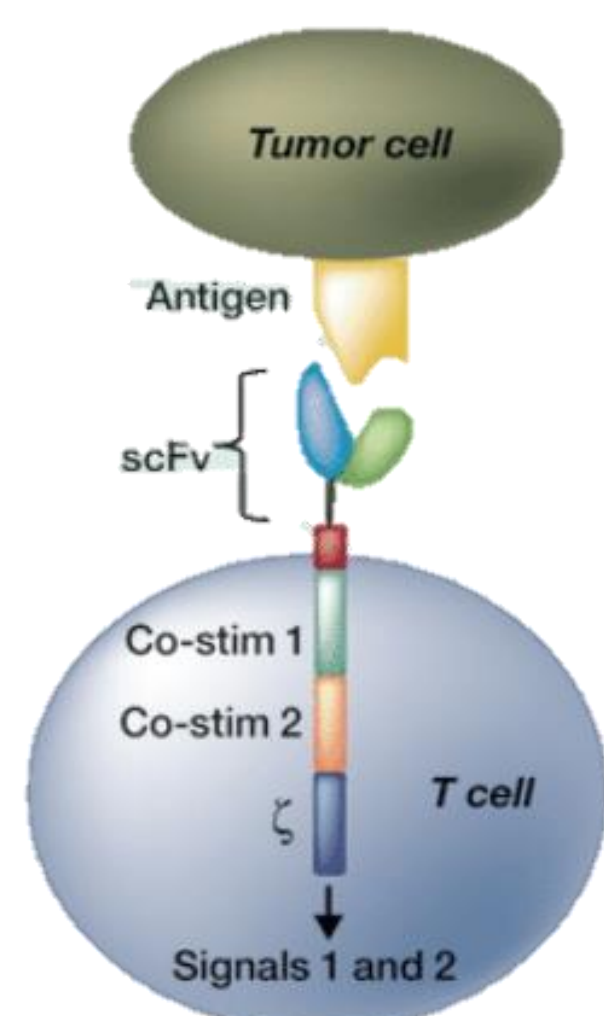
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BACKGROUND AND IMPORTANCE

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Transformation of the therapeutic landscape of some B-cell malignancies.



New immune-mediated toxicity:

- Cytokine Release Syndrome (CRS)
- Immune effector Cell Associated Neurotoxicity Syndrome (ICANS).

AIM AND OBJECTIVE

1. Describing the **immune-toxicity profile** of CAR-T cell therapies in a cohort of real-life patients
2. Looking for possible **risk factors** related to current and previous **treatments**.

MATERIALS AND METHODS

Collection data

01/01/2019 – 07/31/2019

Inclusion criteria

Infusion of commercial anti-**CD19 CAR-T**
(axi-cel. tisa-cel)

Collected data

Descriptive variables of the patient.
CRS and ICANS-type AEs.
Treatments against them.

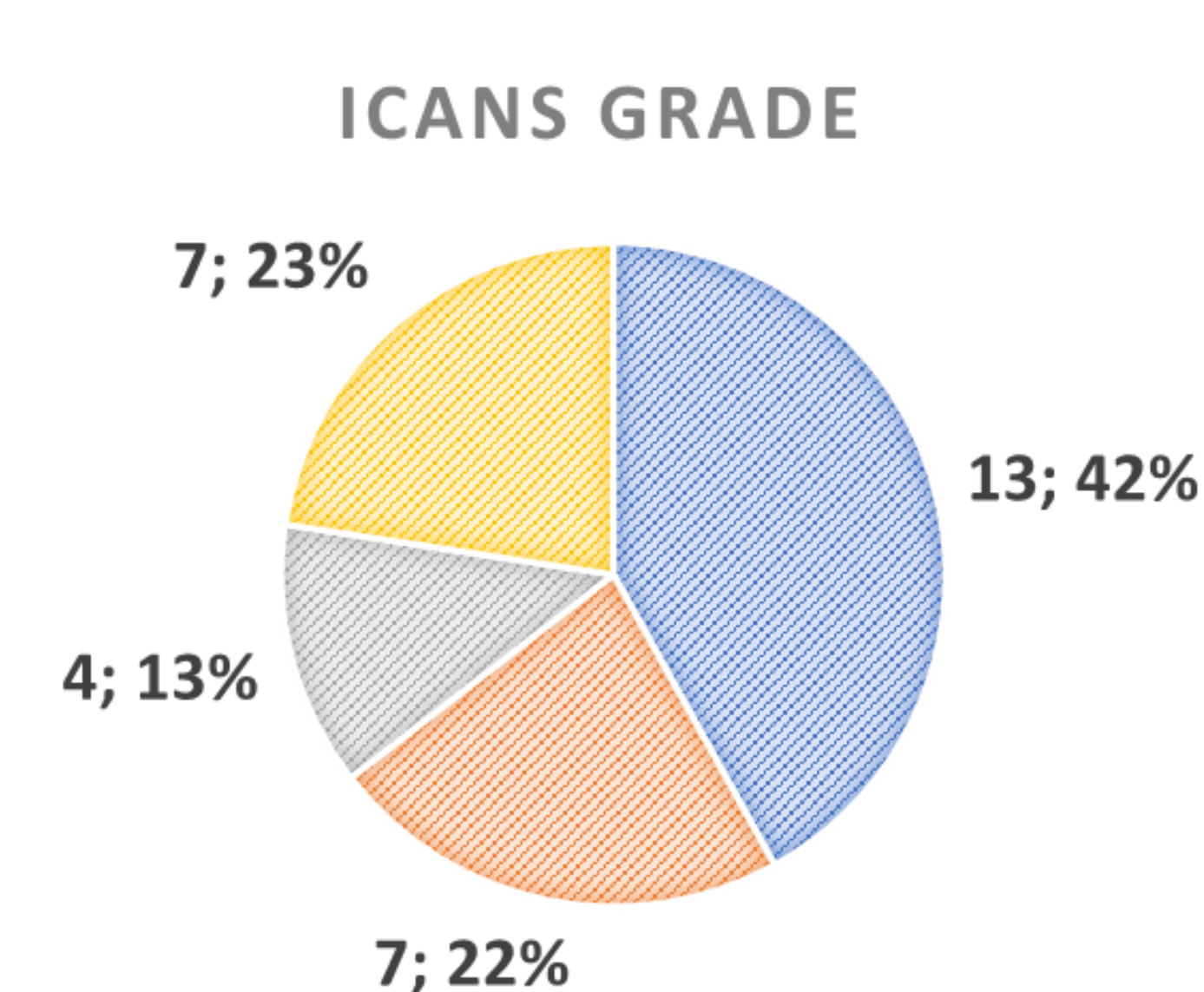
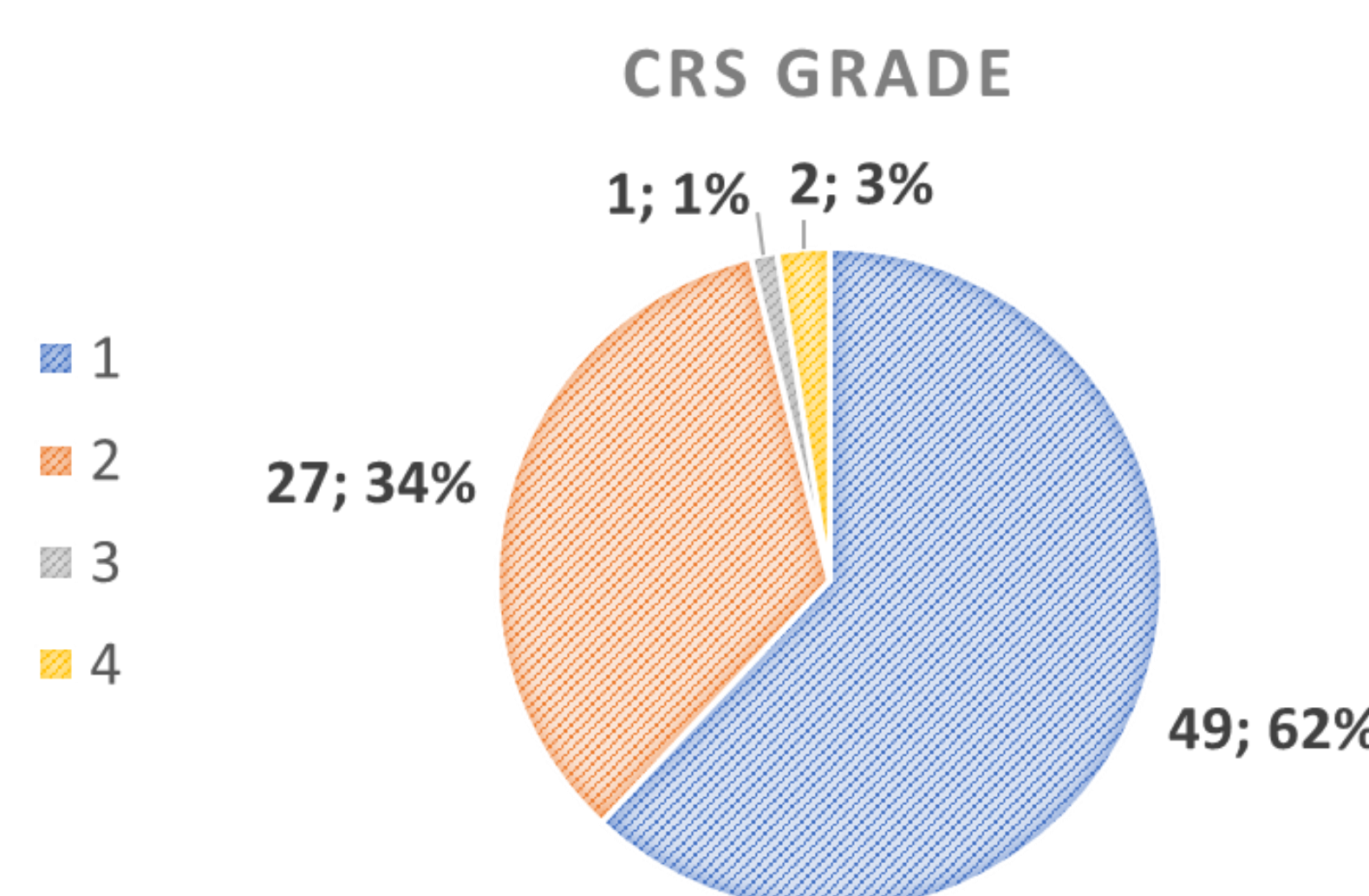
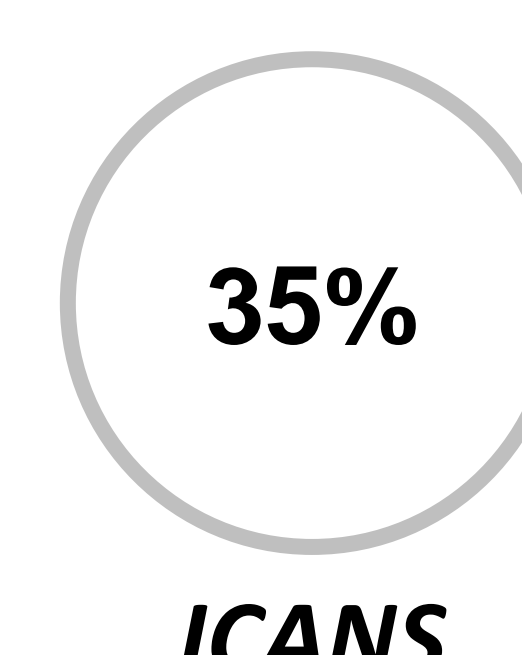
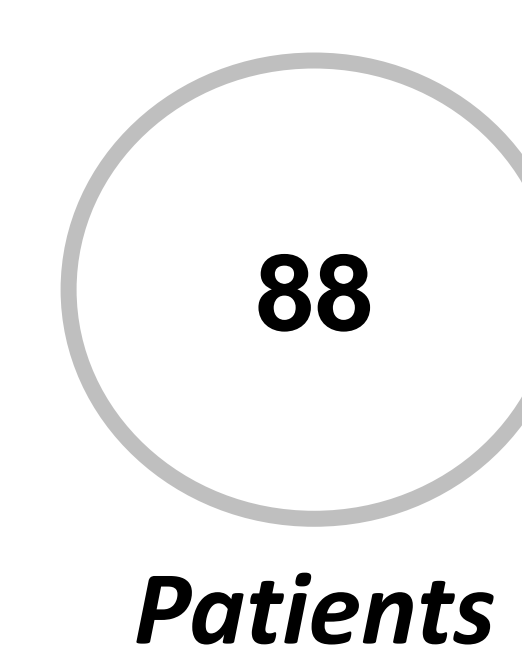
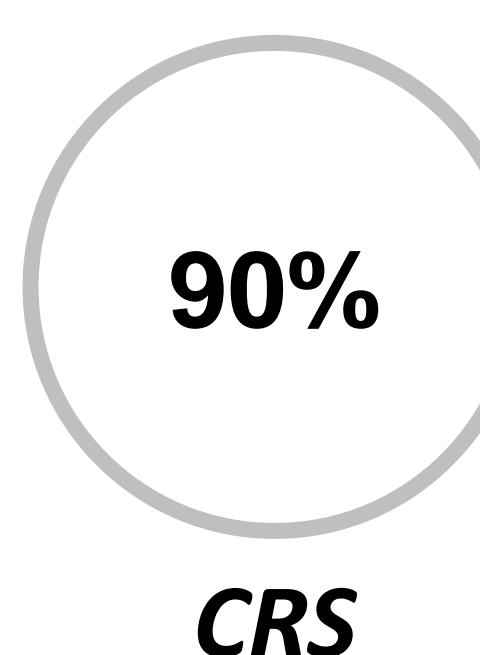
Statistical analysis



RESULTS

Table 1. Patients stats.

Age (years. average)	54.5 (57.3 lym / 22.6 leuk) (19.5-79.7)
Sex (women. N (%))	39 (44%)
Neoplasia	B Lymphoma 81 (92%) Acute lymphoid leukemia 7 (8%)
Previous lines. no hematopoietic transplant (average)	2.5 (1-6)
CAR-T	Axi-cel (%) 50 (57%) Tisa-cel (%) 38 (43%)



Risk factors. Logistic regression

CRS

No significant risk factors

ICANS

Previous tocilizumab (OR=6.72 p<0.05)
Axicabtagene ciloleucel (OR=4.46 p<0.05)
Previous CRS grade 2-4 (OR=4.45 p<0.05)

Proportion of CRS > proportion of ICANS

(diff=55.54%. p>0.00)

Probability of grade 2-4 ICANS > Probability of 2-4 CRS

(diff=20.09%. p<0.05).

Required treatments	Tocilizumab	Corticosteroids	Bolus corticosteroids	Siltuximab	Anakinra
	77.27%	61.36%	18.18%	27.27%	19.23%

60.2%

2 or more treatments

CONCLUSION AND RELEVANCE

Our real-life study supported the conclusions of other authors.

- It was **more likely** to have suffered **CRS** than ICANS.
- **ICANS** was more likely to be **more severe**.
- Suffering **ICANS** seemed to be associated with previous **tocilizumab** use, **axicabtagene ciloleucel** and previous **moderate-severe CRS**.

