

## SEVERE HYPERTRIGLYCERIDEMIA IN PEDIATRIC ONCOLOGY PATIENT.

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### Background:

Severe Hypertriglyceridemia (HTG) defined as triglycerides (TG) in blood plasma higher than 1000 mg /dl is a rare condition in childhood. Its causes are classified as primary and secondary and among these last they include pharmacological causes. Steroids associated with some chemotherapy drugs, particularly asparaginase (Asp), are a combination with special risk.

### Objectives

Describe the evolution of lipids profile in acute lymphoblastic leukemia (ALL) patients, treated with steroids associated with Asparaginase (Asp),

### Methods

Retrospective descriptive study of cases of severe HTG in patients with ALL treated in a tertiary hospital in 2010-2015. We have studied the prevalence of this disorder and its characteristics. Patients were treated on the LLA SHOP-2005 or LLA SHEOP-PETHEMA 2013 with an average of 23 dose of intramuscular Steroids-Asp (prednisone 60 mg / m<sup>2</sup> / day, or dexamethasone 8 mg / m<sup>2</sup> / day ) patient and distributed in 3 blocks of treatment .

## RESULTS

- **45 patients** were diagnosed with ALL (mean age 5 years old, male / female: 1.5 / 1).
- **Protocols:** ALL SHOP-2005 (49%) and ALL SHEOP-PETHEMA 2013 (51%);
- **102 estimated blocks** with Steroids-Asp administration.

- It was found **severe HTG in 4 patients** with steroid-Asp (prevalence of 4%).
- The **mean age was 7 years**. Three were high-risk ALL.
- **No relationship with other medications** received was found.
- The **evolution** of HTG was adequate regardless of the therapeutic approach.
- No acute clinical **complications**.



Patient	Age (years)	TG (mg/dL)	Treatment	TG 3 days (mg/dl)	TG 1 week (mg/dl)	TG 3 months (mg/dl)
A	14,5	>7,000	Bezafibrate (6 mg/kg/día)	2,836	244	NA
B	7,7	6,280	Bezafibrate (10 mg/kg/día)	323	123	91
C	5,9	2,200	None	252	340	314
D	3,5	3,799	None	771	522	171

### CONCLUSIONS

The Asp and steroids can produce a transient severe HTG. Its management is based on dietary modifications +/- lipid lowering agents, and close monitoring without altering chemotherapy. No serious acute complications observed in any case.

Disclosure Statement: We do not have any potential conflicts of interest to declare.

