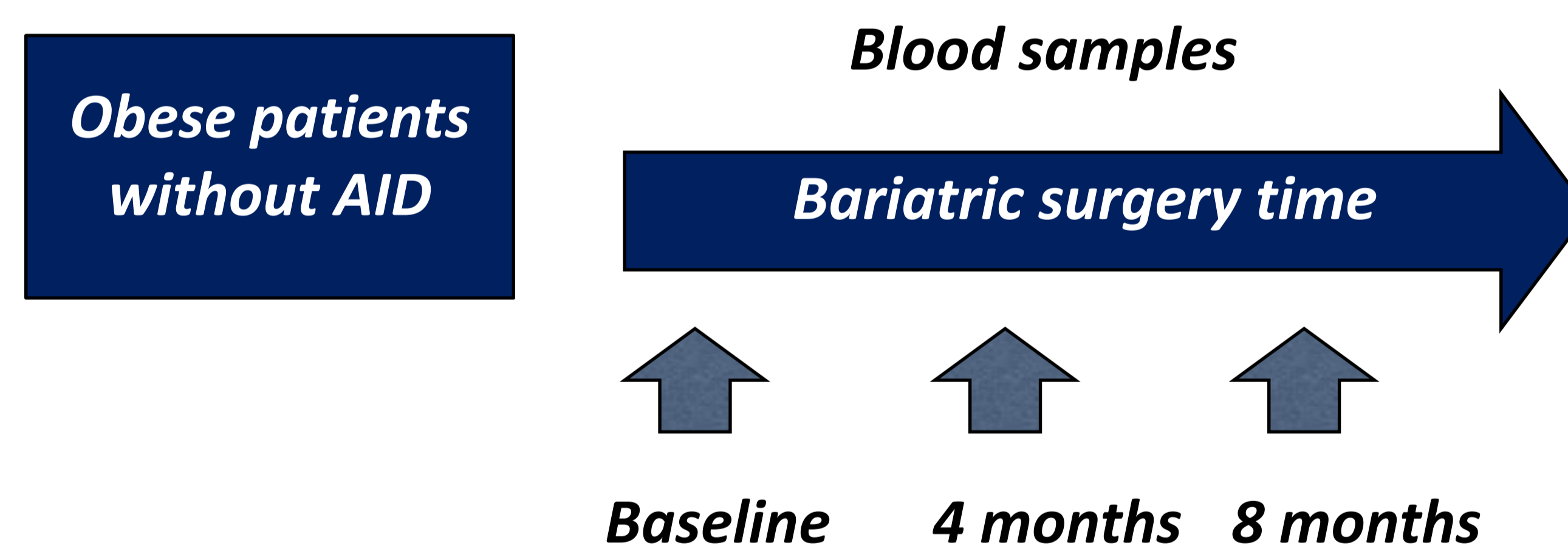


IMMUNOLOGIC CHANGES AFTER BARIATRIC SURGERY: IS IT A TRIGGER FOR SYSTEMIC AUTOIMMUNE DISEASES?

Background/Objective

Obesity is a proinflammatory condition where some cytokines play an important role. We have described the development of systemic autoimmune diseases after bariatric procedures (*Cañas et al, J Clin Rheumatol 2016*) However, immunologic variations associated to weight loss after bariatric procedures are unknown. Our aim is to describe immunologic profile changes in obese patients following bariatric surgery.

Materials and methods



Each sample was evaluated to determine:

- Complement C3 and C4 levels
- Antinuclear antibodies (ANAs)
- IgG/IgM anti-Cardiolipin antibodies (aCL)
- Anti-CCP antibodies
- Rheumatoid Factor
- Peripheral blood distribution of B and T lymphocytes
- Leptine
- Adiponectine

Results

Thirty-four patients were included (88% women). Mean age at inclusion was 38.3 years.

Parameter	Baseline	8 months	P
BMI*	42.8 ± 3.6	33.5 ± 5.3	0.001
C3*	164 ± 40.6	112.4 ± 31.4	<0.001
C4*	29.3 ± 10.1	22.5 ± 7.1	0.0009
IgG aCL (GPL)*	7	3	<0.001
T CD4, %*	44.6 ± 8.3	45.8 ± 7.4	0.0179
T CD8, %**	21 (18-24.9)	20.1 (16.9-23.2)	0.0002
CD4 number**	1074 (860-1316)	1217.5 (838-1510)	0.0016
CD8 number**	494 (355-634)	502.5 (378-632)	0.3876
CD4/CD8 ratio**	2.2 (1.7-2.7)	2.4 (1.8-2.8)	0.0001
Leptine *	45.7 ± 9.14	23.5 ± 12.6	<0.001
Adiponectine *	6.6 (5 - 10)	10 (6 - 17)	0.0001

* mean ± SD

* Paired t test

** median, IQR

** Wilcoxon signed-rank test

- Four patients (11.8%) with negative baseline ANAs had positive results at 8 months.

- One patient with baseline ANAs 1:80 presented higher titles (1:160) at 8 months.

- Anti-CCP was slightly positive in one patient (22 IU/mL, cutoff: 20) at baseline and the titers increased 10 times at 8 months.

- IgM aCL and RF did not change during follow-up.

Conclusions

- Our results showed immunological changes after bariatric surgery (mainly in C3 and C4 levels, positivity of ANAs and variation in T cells distribution).
- Clinical implications of these findings must be analyzed in the follow-up of our cohort.

Conflict of interest: None Sources: Fundación Valle del Lili