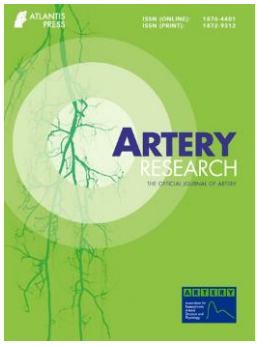

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5.6: LONGITUDINAL FOLLOW-UP OF ARTERIAL STIFFNESS IN PATIENTS WITH SEVERE PSORIASIS TREATED BY ANTI-IL12/IL-23 COMPARED TO ANTI-TNF ALPHA

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5.6
LONGITUDINAL FOLLOW-UP OF ARTERIAL STIFFNESS IN PATIENTS WITH SEVERE PSORIASIS TREATED BY ANTI-IL12/IL-23 COMPARED TO ANTI-TNF ALPHA

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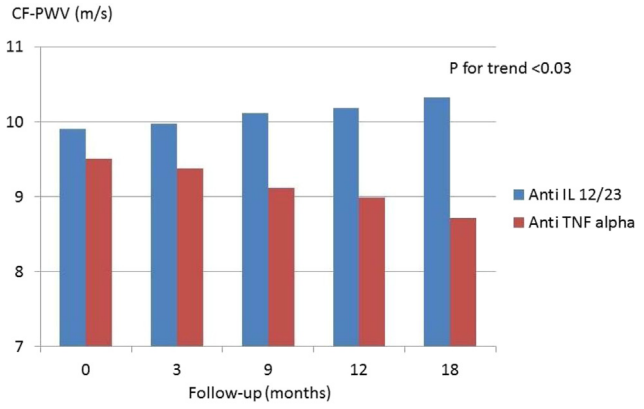
Patients with chronic severe psoriasis are at increased cardiovascular risk (CVR). Modern systemic treatments of psoriasis involve anti-TNF alpha (ATNF) and more recently introduced anti-IL12/IL-23 (ustekinumab, AIL12/23) which, by interfering with IL-17, a possibly vasculoprotective cytokine, may increase CVR. We characterized large arteries remodeling and stiffness during longitudinal follow-up under ATNF and AIL12/23.
We included 31 patients. Followed-up was 13 ± 3 months with a mean number of 3 visits. Patients were treated either by ATNF (n = 13) or by AIL12/23 (n = 18). Mean age was 49 (27—71) 50% were females, 89% were overweight, 55% smokers and 32% (well controlled) hypertensives. Patients did not differ for severity scores of psoriasis or baseline characteristics. Carotid to femoral pulse wave velocity (PWV) and central pressure (applanation tonometry), carotid PWV and IMT (echotracking) were measured at each visit.
Blood pressure and heart rate did not change with either treatment. Carotid diameter did not change during follow-up, IMT increased more with AIL12/23 than in ATNF group (diff. à 18 months 75 μm, p = 0.10). Carotid distension and carotid distensibility decreased significantly under AIL12/23, whereas it increased with ATNF, independently of BP. Carotid PWV and CF-PWV increased independently of BP with AIL12-23 and decreased with ATNF (18 months diff. +1.60 m/s and +1.15 m/s, p < 0.05, respectively).



We documented an increased in stiffness and hypertrophy of large arteries during longitudinal follow-up of patients under antiinterleukin 12/23 treatment for psoriasis, compared to antiTNFalpha. Whether this is due to a protective effect of ATNF and/or adverse effect of AIL12-23 remains to be determined.

Reference
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5.7
SUBPOPULATIONS OF CIRCULATING T LYMPHOCYTES IN OBESE PATIENTS UNDERGOING BARIATRIC SURGERY

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Objective: It has been previously demonstrated that T lymphocytes may be involved in the development of hypertension and microvascular remodeling, and that circulating T effector lymphocytes may be increased in hypertension. In particular, Th1 and Th17 lymphocytes may contribute to the progression of hypertension and microvascular damage while TREG lymphocytes seem to be protective. However, no data is available about patients with severe obesity, in which pronounced microvascular alterations were observed.
Methods: We have investigated 32 severely obese patients undergoing bariatric surgery, 24 normotensive lean subjects and 11 hypertensive lean subjects undergoing an election surgical intervention. No sign of local or systemic inflammation was present in any subject or patient. A peripheral blood sample was obtained before surgery for assessment of CD4+ T lymphocyte subpopulations. Lymphocyte phenotype was evaluated by flow cytometry after 5 hour in vitro activation in order to assess T-effector and T-regulatory (TREG) lymphocytes. Subsets of TREGS were defined as follows: −TREGS recent thymic emigrants (RTE), directly derived from thymus: CD31+; −TREGS naïve: CCR7+CD45RA+; −TREGS central memory (CM): CCR7+CD45RA−; −TREGS effector memory (EM): CCR7−CD45RA−; −TREGS terminal differentiated effector memory (TDEM): CCR7−CD45RA+.
Results: The results are summarized in the Table (*p < 0.05, **p < 0.01, ***p < 0.001 vs. lean normotensives; #p < 0.05, ##p < 0.01, ###p < 0.001 vs. lean hypertensives). A marked reduction of several TREG subpopulations was observed in obese patients compared with controls, together with an increased in some T-effector cells.

	Lean normotensives	Lean hypertensives	Obese patients
TREGs (%)	4.11 ± 1.60	4.64 ± 1.66	2.69 ± 1.81**##
TREGs (abs number)	45.4 ± 24.3	45.4 ± 23.8	27.3 ± 21.1**#
TREGs naíve (%)	22.1 ± 10.1	18.1 ± 13.1	13.34 ± 12.9**
TREGs naíve (abs number)	10.6 ± 7.75	9.71 ± 8.87	3.87 ± 5.28***##
TREG CM (%)	32.3 ± 13.8	32.8 ± 17.8	22.7 ± 15.2*#
TREGs CM (abs number)	14.7 ± 10.2	14.2 ± 9.08	6.10 ± 8.08***##
CD4+ EM (%)	24.4 ± 9.96	26.8 ± 12.5	34.1 ± 13.3**
CD161+CD28+ (%)	86.2 ± 28.5	94.9 ± 5.63	97.2 ± 5.39*

Conclusion: TREG lymphocytes are clearly reduced in severely obese patients, possibly contributing to the development of marked microvascular alterations previously observed in such a population.