

LETTERS TO THE EDITOR

Sensitivity of autologous serum skin test for chronic autoimmune urticaria

Editor

We were genuinely surprised when reading the letter by Husz *et al.*¹ They, in fact, report a very low specificity and a high sensitivity of the autologous serum skin test (ASST) performed with undiluted serum, as they find high numbers of false-positive results in the different disease and healthy control groups. We have had quite the opposite results: in our hands the ASST has a very low sensitivity in patients with chronic idiopathic urticaria (CIU).

Using undiluted fresh serum by both skin prick test and intradermal injection (0.05 mL and, when negative, 0.1 mL), we have tested 55 consecutive subjects with CIU, about half of whom were positive for anti-thyroid antibodies (ATA). The two groups were quite homogenous in terms of age and associated atopy, as evaluated by the clinical history and the positive results of skin prick test or specific immunoglobulin E to the most common inhalant and/or food allergens. The only difference that we found was that females were significantly more prevalent in the ATA-positive group.

The autologous serum prick test was negative in all the patients, whereas the intradermal test scored positive (diameter of the

weal ≥ 3 mm) in only 5 (9%), unexpectedly higher in ATA-negative (15%) than in ATA-positive (4%) patients, as shown in Table 1.

We would have expected the prevalence of a positive ASST to be much higher, particularly in patients who have an associated autoimmune disease such as autoimmune thyroiditis. O'Donnell *et al.*, in fact, have reported a positive ASST in 82% of their 22 ATA-positive patients with CIU.²

We do not believe that the low sensitivity of the ASST in our hands is related to methodological or technical reasons, as it was performed according to the generally accepted procedure. One of the reasons might be the use of serum instead of plasma. Indeed, Asero *et al.*³ have shown that the injection of plasma autologous plasma skin test (APST) causes weal and flare much more frequently than serum and have, therefore, hypothesized that thrombin, in addition to anti-receptor autoantibodies, has a role in the genesis of the positive reaction.

In conclusion, much more work needs to be done before the ASST is accepted as a valuable, reliable tool for the classification of autoimmune urticaria.

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Table 1 Prevalence of positive autologous serum skin test (ASST) in anti-thyroid antibodies (ATA)-positive and -negative chronic idiopathic urticaria patients

ATA	N	F (%)	Median (range)	Atopy	ASST+ (%)
+	28	26 (93%)*	52 (24–79)	9 (32%)	1 (4%)
–	27	18 (67%)	41 (22–74)	9 (33%)	4 (15%)
Total	55	44 (80%)	48 (22–79)	18 (33%)	5 (9%)

* $P < 0.02$.

References

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