Sir,

The treatment in the extensive and long-lasting forms of alopecia areata is often frustrating. The association of more therapies for alopecia areata Treatment

<table>
<thead>
<tr>
<th>G. Orecchia</th>
<th>L. Perfetti</th>
<th>G. Borroni</th>
<th>G. Rabbiosi</th>
</tr>
</thead>
</table>

Pavia

G. Orecchia, MD, L. Perfetti, MD, G. Borroni, MD, G. Rabbiosi, MD, Clinica Dermatologica dell'Università di Pavia, p. le Golgi, 27100 Pavia (Italy)
chlorobenzene) has already been tried for vitiligo [5], a disease associated with alopecia. With 2% SADBE, we sensitized 3 women, suffering from alopecia universalis and aged 22, 39 and 63 years, and treated them with 0.6 mg/kg of 8-methoxypsoralen per os, 2 h before total body exposure to the UVA of a PUVA 6000 Waldmann lamp, and with weekly applications of SADBE on the left side of the head at a concentration sufficient to keep a mild level of erythema (0.001, 0.5 and 0.01%, respectively) [6]. The application of SADBE was done at least 24 h before and after PUVA treatment. Two or three sessions of PUVA were carried out weekly up to a maximum of 60 sessions when the treatment was suspended for the evaluation of results. The youngest woman with the common type of alopecia [7] responded best of all (better on the right side with only PUVA, fig. 1, than on the left side with PUVA + SADBE, fig. 2). The middle-aged woman, with the common type of alopecia [7], had a diffuse and scanty hair regrowth on both sides without any difference. The oldest one, with the combined type of alopecia [7], failed to respond.

In conclusion, the combination of the two treatments is not suitable, because it does not work better than each therapy alone. Instead, in 1 case, the two associated therapies showed an impaired efficacy, because of the inhibition of the SADBE action by PUVA or because of a reduced PUVA efficacy due to SADBE.

The first hypothesis would be more understandable with a prevalence of the inhibitory effect of PUVA. In effect this is known to contrast the induction and elicitation of allergic contact dermatitis, because it impairs the Langerhans cells [8,9] (even if some orders of suppressor cells could be activated also independently from Langerhans cells [10]) and probably because it gives a systemic immunosuppression [11], similarly to UVB irradiation[12], through a direct or indirect (via interleukin-1) stimulation of prostaglandins (PGE2) with the effect of an effenter lymphatic blockade [8].

However, in our case it is more likely that SADBE contrasts PUVA efficacy, but further investigations are needed to clarify the underlying mechanisms.

Fig. 2. Worse response on the left side (PUVA + SADBE).

References

cia areata has already been experienced: thymopentin plus squaric acid dibutylester [1], minoxidil plus anthralin [V.C. Fiedler, pers. com-mun.], on the basis that more drugs with
different mechanisms for promoting hair regrowth might display a synergistic effect and thereby provide enhanced cosmetic results.

Therefore we combined photochemotherapy (PUVA) with squaric acid dibutylester (SADBE). The rationale is in the fact that PUVA blocks T helper lymphocytes [2], while SADBE is supposed to stimulate the T suppressor lymphocytes [3]. Furthermore, PUVA is reported to recall T suppressor lymphocytes into the alopecic area [3] similarly to topical immunomodulators [4]. Moreover, an association of PUVA and a topical allergen (dinitro-