

introduction hides the typical features of delayed pressure urticaria. Delayed pressure urticaria is an uncommon form of physical urticaria characterized by the development of deep painful swellings several hours after application of pressure. The lesions are often associated with systemic symptoms and can be disabling.<sup>[2,3]</sup> Though the author has tried to devise a simple method to diagnose DPU, it lacks in various aspects. Firstly, the method of delivering pressure to the skin with blood pressure cuff and two kg of weight seems simple, but is incorrect. Due to the lack of a quantitative method to reproduce clinical lesions in DPU, several attempts have been devised to deliver pressure to the skin in the past. The essential requirement is application of supra threshold pressure for a given site for a sufficient period of time.<sup>[2]</sup> Method as suggested by the author is neither graded nor compared with the standard technique. Moreover, the author has not demonstrated and stated in his cases, the status of test for dermographism as well as for other physical urticarias. Secondly, clinical lesions reproduced by such a method have not been substantiated by the author. They may be just dermographism or delayed dermographism. It may be argued that three of the fifty patients who developed wheals after such a method could represent Koebner wheals or delayed dermographism as they were visible swellings alone and did not meet the clinical characteristics of DPU, which are development of painful, indurated swellings at sites of prolonged pressure with or without systemic symptoms.<sup>[2]</sup> Wheals of chronic urticaria that develop at the sites of pressure may be confused with DPU and are termed as Koebner wheals.<sup>[3]</sup> They usually occur with a flareup of chronic urticaria and run the same course as the associated urticarial wheals, distinguishing them from DPU.<sup>[3]</sup> The author's confusion could also be due to not recognizing the distinct entity called delayed dermographism, in which patients develop immediate dermographism on stroking the skin followed later by wheals peaking at six to eight hours.<sup>[3]</sup> Delayed dermographism may be associated with DPU and may look similar to DPU. Thirdly, for patients who developed wheals, diagnosis was not supplemented with investigations and relied more upon the history of development of swellings at the

## Is it delayed pressure urticaria or dermographism?

Sir,

We read with great interest the letter "Diagnosis of delayed pressure urticaria".<sup>[1]</sup> This letter is confusing in the context of the current literature and raised more questions than answers related to the diagnosis of delayed pressure urticaria (DPU). The

site of pressure. Histopathology of DPU has been studied exhaustively. Histopathology in early lesions demonstrates predominantly neutrophils and eosinophils, while late lesions show eosinophils and lymphocytes with increased number of degranulated mast cells.<sup>[4]</sup> It has also been shown that clinical lesions of DPU can be reproduced by injections of histamine in the skin.<sup>[5]</sup> Leukocytosis without absolute eosinophilia, elevated erythrocyte sedimentation rate and presence of thyroid microsomal antibodies may be noted amongst these patients with DPU.<sup>[3]</sup>

Of the several modes to deliver pressure to skin to reproduce lesions of DPU, dermographometer is the most suitable; however, it is not available in India. To circumvent the need for a dermographometer, a simple method has been suggested.<sup>[6]</sup> It consists of a glass sphere such as a marble, approximately 1.4 cm in diameter to be placed on the middle of the flexor aspect of the forearm and attached to a shopping bag loop containing four kg of weight and left there for five minutes. The wheals of DPU are usually maximal after four to eight hours. The wheal once appeared does not fade completely for another few hours. We suggest that the diagnosis of DPU should be based on typical clinical findings, suspended weight testing (as suggested) or dermographometer and wherever possible supplemented by evaluation of hematological parameters, histopathology of the lesion and histamine skin test in suspected patients.

## REFERENCES

1. Godse KV. Diagnosis of delayed pressure urticaria. *Indian J Dermatol Venereol Leprol* 2006;72:155-6.
2. Champion RH, Greaves MW, Black AK, Pye RJ. *The Urticarias*. Churchill Livingstone: Oxford; 1985. p. 168-93.
3. Dover JS, Black AK, Milford WA, Greaves MW. Delayed pressure urticaria Clinical features, laboratory investigations and response to therapy of 44 patients. *J Am Acad Dermatol* 1988;18: 1289-98.
4. Winkelmann RK, Black AK, Dover J, Greaves MW. Pressure urticaria- Histopathological study. *Clin Exp Dermatol* 1986;11:139-47.
5. Czarnetzki BM, Meentken J, Rosenbach T, Pokropp A. Clinical, pharmacological and immunological aspects of delayed pressure urticaria. *Br J Dermatol* 1984;111:315-23.
6. Warin RP. A simple out-patient test for delayed pressure urticaria. *Br J Dermatol* 1987;116:742-3.

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