Methods of categorising diabetic foot ulcers

In the last issue of The Diabetic Foot (**3***(1): 10-11) letters commenting on the S(AD) SAD classification system (Macfarlane and Jeffcoate, 1999) were published, and in this issue further comments are added by Foster and Edmonds, and Associate Editor of the journal, Matthew Young. Jeffcoate and Macfarlane also give their collective response.*

Another method for categorising ulcers, the Simple Staging System, is also presented in this issue of the journal (see page 56), and we would welcome further feedback from readers. To add your comments to the continuing debate see our website: www.diabeticfootjournal.com or write to: 15 Mandeville Courtyard, 142 Battersea Park Road, LONDON SW11 4NB.

S(AD) SAD: Certain aspects seem to have been overlooked

Regarding the interesting S(AD) SAD system of ulcer classification (*The Diabetic Foot* **2**(4): 123-131). In any grading system one should avoid situations where the difference between grades may be so minimal as to be insignificant. One should also avoid too complex a system: one which is suitable for research may well not be ideal for everyday clinical practice. We agree that any grading system which does not differentiate between the neuropathic and the neuroischaemic foot would be useless both for clinical and research purposes.

Neuropathy and/or ischaemia and/or infection is involved in almost every ulcerative lesion of the diabetic foot and should be included in any grading system. A major problem with the widely used Wagner system is that these factors are not all included.

When grading ischaemia, the authors distinguish between a foot where both pulses are easily felt, a foot where there is diminution of both pulses or absence of one, absence of both pulses, and gangrene. However, this is not a practical grading system. In practice, if both pulses can be clearly felt, or even if there is just one palpable pulse per foot, then ischaemia is rarely a problem. In this part of the S(AD) SAD grading system, gangrene is assumed to be due to worsening ischaemia. However, it may be due to secondary infection of an ischaemic ulcer, or even a neuropathic ulcer.

Furthermore, in grading infection, there is no mention of wet gangrene, which is the progression of infection when cellulitis is not controlled. Gangrene may therefore be due either to ischaemia or to infection but is only mentioned in the ischaemia section of S(AD) SAD.

The authors introduce a grading system for neuropathy, which includes the Charcot foot, which is a totally separate entity to ulceration and confuses the issue. (Why, if they include Charcot foot, do they not include painful neuropathy?) Why do they not use the 10g monofilament? This is the most widely used and practical technique for quantitating neuropathy.

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S(AD) SAD validation

We were very encouraged by the helpful and supportive comments of Drs Apelqvist, Bakker, Serra and Young (*The Diabetic Foot* **3**(1): 10-11). Ms Foster and Dr Edmonds (above) are more critical but their points can be easily resolved by reasoned debate. We are enthusiastic about the suggestion that an international meeting should be held in order to achieve consensus because we feel that the establishment of a robust classification is essential if we are to undertake the scientific research necessary to define optimum patterns of management.

We agree with Dr Robert Young that the system we have proposed still contains unintended imprecision and that this needs to be eliminated. We also agree that validation is required, and have started to do this ourselves. So far this year we have classified 80 new lesions — with the eventual aim of correlating the coding with outcome. We have found it to be simple to apply and unambiguous, and look forward to more details of Professor Serra's experience in Oporto. We recognise, however, that for the purposes of validation, coding should be properly undertaken by someone uninvolved in clinical management, and there also needs to be some assessment of inter-rater reliability.

We are very keen to involve other units in this process and would like to take this opportunity to ask for anybody who is potentially interested in participating to contact us.

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Classification *vs* description

Clinical effectiveness requires accurate and concise ulcer descriptions and classifications to improve interdisciplinary communication and for meaningful inter-centre comparisons. Ulcer classifications should delineate unique ulcer types with definable characteristics distinct from other ulcer categories, guiding prognosis, audit and research. A good example is the classification of ulcers by suspected aetiology, e.g. neuropathic, or by perceived severity, e.g. superficial. Ulcer classifications should be applied once, based on the initial characteristics, and should not alter with the progress of therapy, allowing outcome evaluations for each ulcer type.

In contrast, descriptions use definable characteristics which are ephemeral, changing as the ulcer progresses. Descriptive terms may also be used in classifications but generally have too many variables to have workable numbers of categories. Therefore, descriptions are not a basis for classifying an ulcer, but should be used to prompt adjustments in treatment as the ulcer changes, and to facilitate referrals in an unambiguous way.

The Diabetic Foot journal has published the Simple Staging System and the S(AD) SAD, joining the Texas and Wagner systems in the literature. The Texas and Wagner systems have both been validated, but neither of the recent British systems has been validated formally.

In smaller units with a clinical focus, delineating neuropathic and neuroischaemic ulcers, or use of the Wagner system, will suffice to audit outcomes and guide management. The Simple Staging System, its subcategorisations and treatment schema will also aid management decisions. However, in research and for comparisons between units, I believe that a more detailed system, such as the Texas or S(AD) SAD, should be used. Discussion and research to reach a consensus is urgently required.

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