3rd Congress of the World Union of Wound Healing Societies: "One problem – One voice"

This report is from the 3rd Congress of the World Union of Wound Healing Societies (WUWHS) that took place on 4-8 June 2008 at the University of Toronto, Canada.

By Paul Chadwick, Principal Podiatrist, Salford

The 3rd congress of the World Union of Wound Healing Societies conference took place in Toronto, Canada from the 4–8 June 2008. The conference was titled "One problem – one voice". It was attended by over 3500 delegates from 30 different countries, including the UK. The conference was presented with 10 tracks over 4 days (See *Box 1* for the tracks). In addition to the tracks there were key-note speakers and a variety of satellite symposia including those on wound pain, diagnostics and difficult-to-heal wounds. There was also a large poster exhibition including free paper oral presentations and the conference was well-supported with a large trade representation. The following report summarises the key-note sessions.

The first key-note speaker was Stephen Lewis (former special envoy for the UN) who addressed the growing disparity in the standard of health between developed and developing countries. He emphasised the struggle to access low cost medicines, the absence of healthcare professionals and the re-emergence of communicable diseases.

John O'Leary gave a patient's perspective in his key-note address. In a moving presentation John described how he had suffered burns on 100% of his body as a child and the subsequent physical and mental trauma.

Defining the extent of the problem

This was the first session of the diabetic foot tract. The first speaker was Robert Frykberg (Chief of Podiatry, Carl T. Hayden VA Medical Center, Pheonix, US) who covered the growing problem in North America. He described the increasing incidence of foot ulcerations in males resulting in hospitalisation and the increasing cost of managing ulceration. He described the causal pathways of foot ulceration and the critical triad of deformity, trauma and neuropathy.

The vascular complications of diabetes were discussed, especially in terms of morbidity and health costs. For example, 50% of people with diabetes and peripheral arterial disease (PAD) will have a cardiovascular incident, a myocardial infarction or pass away within 5 years of diagnosis. The 5-year mortality of people with coexisting diabetes and PAD was similar to that of colon cancer. Further, people with diabetes who develop a neuropathic foot ulcer have a 45% 5-year mortality rate which is higher than breast and prostate cancers. Jan Apelqvist (Head of Diabetes, University Hospital Malmö, Sweden) then gave a European perspective. He described a cohort of 1200 patients with foot ulcerations. They had a mean age of 65, 64% were male, 49% had an HbA_{1c} greater than 8.4% and 70% had a greater than 10 year diagnosis of diabetes. He also described the severity of diabetic foot ulcers at presentation from the EURODIAL study with 50% being neuroischaemic in origin and 50% presenting with infection. The issue of males not attending for foot-care was again identified as a problem. Dr Apelqvist advocated a multidisciplinary approach to ulcer management.

Risk assessment and neuropathy

The second session was opened by Andrew Boulton (Professor of Medicine [Diabetes] at the University of Manchester, and University of Miami) who described the work of an expert panel of the American Diabetes Association who met earlier this year. They recommended two tests to assess peripheral nerve dysfunction . This would normally comprise a 10g monofilament plus one other from vibration perception, pinprick sensation and ankle reflexes. Controversially the expert group recommended the use of four sites for monofilament testing as opposed to the International Consensus guideline produced in 2007 which recommended three. A debate around the issue failed to resolve the controversy. In addition Professor Boulton said any obvious deformity should be noted along with peripheral pulse assessment.

David Armstrong (Professor of Surgery and Associate Dean at Rosalind Franklin University of Medicine and Science) concluded the session by reviewing the current state of play regarding treatment of the diabetic foot and wounds in the developed and developing world. He spoke about the major developments that have improved diabetic foot care over the last decade. He identified successes and failures and advocated that prevention was the way forward.

Peripheral arterial disease

Session 3 was opened by Stephan Morbach (Consultant Physician at the Diabetic Clinic, Department of Internal

Medicine, Marienkrankenhaus, Germany) who described the extent of the disease within the population with diabetes being five times more common than the population without diabetes. He then went through a detailed review of vascular assessment of the person with diabetes. The two take-home messages were that any person who has a cardiac event should have a lower limb vascular assessment and the use of what he described as "the disappearing pulse phenomenon" (in which a person's pulse at rest is palpable but following exercise has disappeared) to aid diagnosis. He finished his lecture with a diagnostic algorithm for PAD in people with diabetes and medical options for treatment of PAD based on the recent TASC II consensus guidelines.

There followed some free papers in which Thomas Serena (Medical Director and founder of the Penn North Center for Advanced Wound Care) again emphasised the difficulty of vascular evaluation in people with diabetes and the challenge in the management options due to the tibioperoneal distribution of the disease. He then discussed the option of gene therapy as a solution and the so-called "biological bypass".

The chronic wound in diabetes

Keith Harding (Professor of the Wound Healing Research Unit, University of Cardiff) gave an excellent presentation to open session 4, describing the aberrations in the wound healing cascade. He advocated the potential for diagnosing and correcting specific abnormalities with targeted therapy. He stated that the approach to foot ulcer management needs to address three levels, namely, control of the diabetic state, complication control and control of the factors influencing healing in patients with chronic non healing wounds.

The second lecture in this session was delivered by Thomas Kwyer (Otolaryngologist, Toledo, Ohio) who gave a very detailed account on how nutritional interventions should not just concentrate on optimising diabetes control but on the effect on metabolic, mitochondrial and cell signalling events that occur in diabetes.

Infection

Dr Mike Edmonds (Consultant Diabetologist, Diabetic Foot Clinic, King's College Hospital) gave an excellent whistle-stop tour of wound infection, reminding us of its rapid progression from minimal signs to quickly reaching the point of no return. Early signs to note in the ulcer were a change of colour of granulation tissue from pink to grey, increased friability of the tissue and an increase in pain, exudate and odour. The second speaker Stephan Landis (Internist at the Guelph General Hospital, Ontario) described how to assess the presence of infection and that good bedside skill in combination with appropriate diagnostic radiographic and microbiological studies were the ideal complement. He advocated the mnemonic NERDS to indicate critical colonisation –

N: Non-healing wound;
E: Exudate increase;
R: Redness;
D: Debris;
S: Smell

– and the mnemonic STONES to indicate infection –

S: Size bigger;
T: Temperature;
O: prObes;
N: New breakdown;
E: Exudate, oedema, erythema;
S: Smell.

The session on infection finished with Professor William Jeffcoate (Consultant Endocrinologist, Nottingham City Hospital) discussing the management of osteomyelitis. He highlighted the wide variety of approaches, especially with respect to the need for, and extent of early surgery; as well as the lack of consensus concerning antibiotic regimen, its route and duration of administration. He felt the uncertainty exists due to the lack of scientific evidence and called for some prospective studies to be developed.

The latter stages of the programme were concerned with pressure redistribution and were complemented by surgical options available. The session on offloading was a review from the role of abnormal pressure, how to offload the active ulcer and footwear. Patient adherence was discussed and James Mcguire (Chairman of the Department of Podiatric Medicine, Temple University School of Podiatric Medicine, Philadelphia) looked at ways to address resistant behaviour. A physiotherapist Robert van Deursen (Director of Physiotherapy, University of Cardiff) then described the importance of walking as a dynamic activity and its importance when considering special footwear. The surgical session had two speakers: Robert Frykberg who described foot sparing procedures and Lee Sanders (Chief, Podiatry Service Veteran Affairs Medical Center, Lebanon, Pennsylvania, US) who advocated a radical approach of transmetatarsal amputation for an intractable ulceration of a toe. He argued that the altered mechanics and subsequent deformity of a toe amputation (particularly the former) makes further ulceration inevitable. The use of a transmetatarsal amputation achieved a cosmetically acceptable and durable result.

Conclusions

The conference was a good learning experience and the depth of the lectures was excellent. The opportunity to listen to other disciplines discussing different aspects of wound care helped me to develop a broader understanding of a variety of topics associated with wound healing. There were some interesting and informative lectures including malignancy in wounds, a non-healable versus a non-healing wound and what's new in pharmacological agents in wound healing. It was announced that the next World Union (after an Olympic style presentation and vote) would be held in Japan in 2012. ■

Box 1. The following 10 tracks were run concurrently:

- Pressure ulcers
- Diabetic foot ulcers
- Ostomy, continence and skin care
- Leg ulcers
- Acute wounds
- Complex wounds
- Global perspectives
- Free papers
- Canadian perspectives
- Research