The importance of establishing a framework for regional and international collaboration in the management of the diabetic foot

The global prevalence of diabetes mellitus continues to rise; estimates are that it will affect 350 million people (4.4% of the global population) by the year 2030. Associated complications of diabetes are likewise increasing. Diabetic foot ulceration (DFU) is complex and costly, being the most frequent cause of hospitalization in this population of patients. In Mexico, there are approximately 12 million people with diabetes mellitus, and the health care cost is 2.3% of the gross domestic product, mostly to treat complications associated with DFU. Last year, the Department of Surgery of the National Institute of Medical Sciences and Nutrition Salvador Zubirán in Mexico City held a multidisciplinary congress with 44 participating panelists who analyzed 126 proposals for DFU management. The conclusions and recommendations derived from this meeting emphasized the need for updated classification systems and clinical practice guidelines, the publication of a position document in Mexico, and the development of courses by qualified and certified groups supported by the National Academy of Medicine for the preparation and training of health care providers in this area.

Communication in health care has always been and still remains a key element in the exchange of scientific knowledge; clinical experience; and modification or reinforcement of behaviors, values, and social norms that ultimately contribute to positive self-care practices, quality of life, and better patient-physician relationships. In October 2018, the Diabetic Foot International Conference (DFCon) was held in Houston, Texas, during which a world-renowned faculty composed of multiple clinical disciplines, innovators, and researchers from Europe, Asia, Oceania, Africa, and the Americas discussed important topics in this area. This led a notable forum to propose a North American Free Toes Alliance (NAFTA), an acronym used for 24 years in the Trade Agreement between the United States, Canada, and Mexico. The North American Free Trade Agreement (NAFTA) has bound the economies together since 1994, removing import and export barriers. The proposed North American Free Toes Alliance would strive to develop and to integrate a regional, trinational registry to evaluate clinical outcomes in the management of DFU. This international initiative could simultaneously serve as an important platform for patients seeking centers of excellence for DFU care. We are convinced that the evaluation of our initial results by a third, independent organization such as the International Working Group on the Diabetic Foot would be crucial and an important pathway toward the possible adaptation and implementation of such multinational efforts in other regions of the world.

The optimization of communication and the design of effective platforms will allow the generation of new and available and, more important, public medical information, research protocols, and practice guidelines. The creation of an international standard of medical care and opportunities for academic exchange of information would be the primary objectives of this effort. This effort could serve as a model for other regions across the globe.

Carlos A. Hinojosa, MD, MSc
Javier E. Anaya-Ayala, MD, MSc
Section of Vascular Surgery and Endovascular Therapy
Department of Surgery
Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán
Universidad Nacional Autonoma de Mexico
Mexico City, Mexico

David G. Armstrong, MD, MSc, PhD
Department of Surgery
University of Southern California
Los Angeles, Calif

Ahmed Kayssi, MD, MSc, MPH
Division of Vascular Surgery
Department of Surgery
Sunnybrook Research Institute
Sunnybrook Health Sciences Center
University of Toronto
Toronto, Ontario, Canada
Joseph L. Mills Sr, MD
Division of Vascular Surgery and Endovascular Therapy
Michel E. DeBakey Department of Surgery
Baylor College of Medicine
Houston, Tex

REFERENCES

https://doi.org/10.1016/j.jvs.2019.02.017

Viva la resolution!

Malas et al, in their study reporting in-hospital outcomes after transcarotid artery revascularization (TCAR) vs transfemoral carotid artery stenting (TFCAS) in the Society for Vascular Surgery Vascular Quality Initiative TCAR Surveillance Project, concluded that “this is the first study to demonstrate the benefit of TCAR compared with TFCAS in real-world practice.”1 At first sight, this is welcome news, as (intuitively) it seems logical that any carotid artery stenting (CAS) innovation that avoids negotiating the aortic arch and uses temporary flow reversal for cerebral protection during stent placement has the potential to considerably reduce procedural stroke. As stated by the authors, “increased rates of periprocedural stroke in TFCAS . . . have led to a negative influence on reimbursement coverage in the United States.” Accordingly, if TCAR significantly reduces periprocedural stroke, it is likely that these “negative” attitudes toward reimbursement will change.

However, closer scrutiny is required before the paper’s conclusions drive a shift away from TFCAS. As is often the case, it is what the paper has not told us that is more important than what it did tell us. First, whereas TCAR patients reported greater comorbidities, there were also significantly fewer symptomatic TCAR patients. The inclusion of a greater proportion of lower risk asymptomatic patients will inevitably confound meaningful analyses of the pooled data. Second, unless in-hospital transient ischemic attack was included in the primary end point (in-hospital death/stroke/transient ischemic attack), there was no evidence that TCAR was associated with significant reductions in in-hospital stroke/death (the most important clinical end point that influences guideline recommendations) in either symptomatic or asymptomatic patients. Third (and most important), there was no stratification for the timing of TCAR (TFCAS) after onset of symptoms (one of the most important issues in contemporary carotid practice).

As with most guidelines, the European Society for Vascular Surgery advised that carotid endarterectomy (CEA) or CAS should be performed as soon as possible after onset of symptoms, preferably within 14 days.2 Because meta-analyses from randomized controlled trials showed that CAS is associated with a threefold excess risk of death/stroke when it is performed <14 days (compared with CEA),2 the European Society for Vascular Surgery advised that when interventions are to be performed <14 days, CEA is the safer, preferred option.2 Unfortunately, the current audit did not present outcomes for TCAR (TFCAS), stratified for delays from symptom to procedure. This is a major omission as it means there is still no published evidence that TCAR can provide comparable outcomes to CEA when it is performed within 14 days of symptom onset. To put things in perspective, intervening in 1000 asymptomatic patients with a 30-day death/stroke rate of 2% will prevent about 60 strokes at 5 years. By contrast, operating on 1000 patients <14 days of symptom onset with a 30-day death/stroke rate of <3% (as was reported in the 2016 UK and German CEA audits34) will prevent >230 strokes at 5 years. It is essential that future TCAR registries publish outcome data when it is performed <14 days of symptom onset. Otherwise, international guidelines will not change their current recommendation that CEA remains the safer option in this time period.

A. Ross Naylor, MD, FRCS, MBChB
Vascular Surgery Group
Division of Cardiovascular Sciences
Leicester Royal Infirmary
Leicester, United Kingdom

REFERENCES