From clinical trial to clinical practice

There has been a remarkable advance in the secondary prevention of stroke over the last 30 years. This includes antiplatelet agents, carotid endarterectomy and angioplasty, warfarin for patients in atrial fibrillation as well as blood pressure and cholesterol lowering. There was such good epidemiological evidence of a strong relationship between elevated blood pressure levels and recurrent stroke risk.

However, providing information based on Level 1 evidence from clinical trials is just the beginning of the long trek from evidence to clinical practice. A series of hurdles need to be jumped, among the most important...
being physician, patient and community acceptance. Barriers to the former include poor physician education, modest absolute benefit of the intervention being promoted, high risk associated with the intervention, a poor perception of its efficacy and, finally, the results not being generalizable. It is this last issue in which Padma et al, in this edition, have nicely demonstrated that the secondary stroke prevention strategy of blood pressure lowering using perindopril based therapy is most likely generalizable to the Indian community. They showed that among 298 patients who have had an ischemic stroke, blood pressure lowering using perindopril-based therapy was associated with recurrent stroke rates similar to that seen in the PROGRESS trial, the definitive study for this intervention. Importantly, the subjects of the study were in a primary care setting and the blood pressure reductions were even greater than that seen in the PROGRESS trial, thus confirming the high adherence rate of 99.6% reported at the end of follow-up at one year.

The barriers to patient and community acceptance usually include poor education about the reasons for intervention, poor adherence to therapy, low absolute efficacy of the intervention and quality of life issues (for example, unwanted side-effects may adversely affect quality of life). In the case of perindopril-based therapy reported by Padma et al, all of these issues seem to have been adequately addressed in this primary care setting. Again, the best indicator of success was the high adherence rate and very adequate blood pressure reductions.

As an increasing number of clinical trials now have a global recruitment base, generalizability to given regions, particularly in Asia, will become less contentious. However, it is important to conduct Phase IV studies such as that reported by Padma et al to be assured that interventions have relevance in our own regions. As such, their efforts should be applauded.

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References