

# 5<sup>th</sup> Global Nephrologists Annual Meeting

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## Study comparing the accuracy of colour duplex ultrasound with digital subtraction angiography in the diagnosis of native Fistula stenosis

**John Swinnen**  
Australia

**Aim/Objectives:** To compare the accuracy of colour duplex ultrasound with digital subtraction angiography in the diagnosis of native Fistula stenosis.

**Method:** Colour duplex US scans of 93 dialysis patients with dysfunctional AVF were compared with fistulograms performed within 6 weeks of the US. The AVF circuit was divided into six zones for the purpose of the study. Colour duplex US and fistulogram images/reports were independently re-reported for stenoses in each fistula zone by two trained clinicians blinded to the other modality. Kappa analysis of the results was performed to assess the accuracy of colour duplex US in the dysfunctional AVF circuit.

**Results:** Congruence of results between US and fistulograms ranged from 85% to 96%, depending on the zone examined. Kappa analysis of this US versus fistulogram data was also moderate to good, ranging from 0.72 and 0.91.

**Conclusions:** Colour duplex US provide an accurate diagnostic assessment of a dysfunctional autogenous AVF. It is particularly accurate in the peri-anastomotic area of the fistula which harbours the majority of fistula problems.

[john\\_swinnen@bluebottle.com](mailto:john_swinnen@bluebottle.com)

## Nephroprotection by hypoglycemic agents: Do we have supporting data?

**Jose Luis Gorriz<sup>1,5,6</sup>, Javier Nieto<sup>2,5</sup>, Juan F Navarro-Gonzalez<sup>3,5,6</sup>, Pablo Molina<sup>1</sup>,  
Alberto Martinez-Castelao<sup>4,5,6</sup> and Luis M Pallardo<sup>1</sup>**

<sup>1</sup>Universidad de Valencia, Spain

<sup>2</sup>Hospital General Universitario de Ciudad Real, Spain

<sup>3</sup>Hospital Universitario N S Candelaria, Spain

<sup>4</sup>Hospital Universitario Bellvitge, Spain

<sup>5</sup>Spanish Society of Nephrology, Spain

<sup>6</sup>Carlos III Research Institute, Spain

Current therapy directed at delaying the progression of diabetic nephropathy includes intensive glycemic and optimal blood pressure control, renin angiotensin-aldosterone system blockade and multifactorial intervention. However, the renal protection provided by these therapeutic modalities is incomplete. There is a scarcity of studies analyzing the nephroprotective effect of antihyperglycemic drugs beyond their glucose lowering effect and improved glycemic control on the prevention and progression of diabetic nephropathy. This article analyzes the existing data about older and newer drugs as well as the mechanisms associated with hypoglycemic drugs apart from their well-known blood glucose lowering effect in the prevention and progression of diabetic nephropathy. Most of them have been tested in humans but with varying degrees of success. Although experimental data about most of antihyperglycemic drugs has shown a beneficial effect in kidney parameters, there is a lack of clinical trials that clearly prove these beneficial effects. The key question, however, is whether antihyperglycemic drugs are able to improve renal end-points beyond their antihyperglycemic effect. Existing experimental data are post hoc studies from clinical trials and supportive of the potential renal-protective role of some of them, especially in the cases of dipeptidyl peptidase-4 inhibitors, glucagon-like peptide-1 receptor agonists and sodium-glucose co-transporter 2 inhibitors. Dedicated and adequately powered renal trials with renal outcomes are necessary to assess the nephroprotection of antihyperglycemic drugs beyond the control of hyperglycemia.

[jlgorriz@ono.com](mailto:jlgorriz@ono.com), [jlgorriz@senefro.org](mailto:jlgorriz@senefro.org)