

Fluorescein angiography and contrast induced nephropathy

Abbreviations: DM, diabetes mellitus; CKD, chronic kidney disease; CIN, contrast induced nephropathy; CM, contrast media; eGFR, estimated GFR

Editorial

Fluorescein angiography is a commonly used procedure for diagnosis and staging of diabetic retinopathy.¹ Diabetic retinopathy is one of the major complications of type 2 Diabetes Mellitus (DM). Patients with diabetic retinopathy are likely to have Chronic Kidney Disease (CKD) as degree of retinopathy correlates with the degree of nephropathy in diabetes.²

Contrast Induced Nephropathy (CIN) is nowadays defined as an increase of 25% or more in serum creatinine, or an absolute increase of 0.5mg/dl or more from baseline value, at 48-72h following the exposure to Contrast Media (CM).³

Although several studies reported the effect of iodinated contrast media on kidney functions especially in diabetic CKD patients, however very few conflicting data had been published regarding fluorescein (non iodinated dye) induced renal injury.

One study in Japan didn't find any effect of fluorescein angiography on renal functions using estimated GFR (eGFR),⁴ however another study in Iran demonstrated a significant rise of serum creatinine after fluorescein angiography in diabetic patients.⁵

Our current practice tell us that fluorescein is generally safe on the kidneys, but evidence is still lacking to proof such concept and we still get notified because of a diabetic patient who need to do fluorescein angiography and has renal impairment.

Further research is therefore required to assess the safety of fluorescein angiography on renal functions in type 2 diabetic patients. May the use of early biomarkers and non dependence on serum creatinine be helpful in resolving the problem and reveal the mystery.

Volume 1 Issue 1 - 2014

Mohamed Essam

Kidney and Urology Center, Egypt

Correspondence: Mohamed Essam, Kidney and Urology Center, Egypt, Tel +201005038467, Email m_elrgal@hotmail.com

Received: October 21, 2014 | **Published:** October 22, 2014

Acknowledgements

None.

Conflict of interest

The author declares no conflict of interest.

References

1. Stingu C, Cristescu A, Daraban C, et al. [Fluorescein angiography in diabetic retinopathy]. *Oftalmologia*. 2003;56(1):15-19.
2. Wessing A. Diabetic retinopathy: update on diagnosis and treatment. *Nephrol Dial Transplant*. 1997;12(9):2013-2018.
3. Mehran R, Nikolsky E. Contrast-induced nephropathy: definition, epidemiology, and patients at risk. *Kidney Int Suppl*. 2006;100:11-15.
4. Kameda Y, Babazono T, Haruyama K, et al. Renal function following fluorescein angiography in diabetic patients with chronic kidney disease. *Diabetes Care*. 2009;32(3):e31.
5. Alemzadeh-Ansari MJ, Beladi-Mousavi SS, Feghhei M. Effect of fluorescein on renal function among diabetic patients. *Nefrologia*. 2011;31(5):612-613.