

Can eGFR be a routine preoperative renal function test?

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A research team from Japan evaluated the validity of the estimated glomerular filtration rate (eGFR) as a preoperative renal function parameter in patients with gastric cancer. Their study showed that eGFR was as equally reliable as creatinine clearance for assessment of preoperative renal function in patients with gastric cancer.

The creatinine clearance (Ccr) test has been used as a gold standard for evaluation of preoperative renal function in patients with gastric cancer. However, it is known that Ccr is not strictly equivalent to glomerular filtration rate (GFR). It has been accepted that estimated GFR (eGFR) is equal to measured GFR in [chronic kidney disease](#). However, there have been no studies regarding the reliability of eGFR as a preoperative renal function test in gastric cancer patients.

A research article to be published on May 21, 2010 in the [World Journal of Gastroenterology](#) addresses this question. The research team from Second Department of Surgery, Dokkyo Medical University, Japan, analyzed Ccr and eGFR retrospectively in a series of gastric cancer patients.

Among 110 patients with normal preoperative Ccr values, 7 (6.3%) had abnormal postoperative sCr values, and among 112 patients with normal preoperative eGFR values, postoperative sCr was abnormal in 5 (4.5%). Among 37 patients with abnormal preoperative Ccr values, 30 (81.1%) had normal postoperative sCr values, and of 35 patients with abnormal preoperative eGFR values, postoperative sCr was normal in 25 (71.4%).

Preoperative Ccr was significantly correlated with eGFR, and postoperative sCr was significantly correlated with preoperative Ccr and eGFR.

The authors concluded that eGFR is as equally valuable as Ccr as an indicator of preoperative renal function in patients with [gastric cancer](#), and that eGFR may now be used in place of Ccr in view of the former's clear medical and socioeconomic advantages.

More information: Kosuge T, Sawada T, Iwasaki Y, Kita J, Shimoda M, Tagaya N, Kubota K. eGFR is a reliable preoperative renal function parameter in patients with gastric cancer. World J Gastroenterol 2010; 16(19): 2417-2420, www.wjgnet.com/1007-9327/full/v16/i19/2417.htm

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