

Fragmented QRS and myocardial performance index in nephrotic syndrome

To the Editor,

The recent report on "Fragmented QRS and myocardial performance index in nephrotic syndrome" published is very interesting (1). Özkan et al. (1) concluded that the "determination of fQRS in patients with nephrotic syndrome (NS) in surface ECG, an easily accessible technique, can be used as a parameter in the prediction of myocardial functions." In fact, it is already known that "fQRS may be useful in identifying patients at higher cardiac risk with larger areas of ischemic jeopardized or necrotic myocardium (2)." Hence, the similar finding among patients with NS is not a surprising finding. Nevertheless, an important factor to be concerned in the patient with NS is the medication. In the case of long-term use of steroid, the effect on the QRS can be expected (3), and this might decrease the utility of fragmented QRS detection. In the present report (1), the use of steroid is not mentioned well, and its effect on the diagnostic property of fragmented QRS is an interesting issue to be discussed.

Sim Sai Tin, Viroj Wiwanitkit¹
Medical Center, Shantou-China

¹Hainan Medical University, China; University of Nis, Nis-Serbia

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Address for Correspondence: Dr. Sim Sai Tin,
 Medical Center, Shantou-China
 E-mail: simsaitin@gmail.com

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Author's Reply

To the Editor,

We evaluated the presence of fQRS in patients with nephrotic syndrome and the relation between fQRS and myocardial functions in our study and showed an association between the presence of fQRS and myocardial performance in this patient group in published August 2014 in *The Anatolian Journal of Cardiology* (1). In addition, we determined that the presence of fQRS is significantly correlated with proteinuria. The demographic data for patients with or without fQRS are shown in Table 1. This also includes steroid use and other immunosuppressive drugs. As Table 1 shows, the only significant

difference in demographic and laboratory parameters was between proteinuria levels, while there was no difference in terms of presence of fQRS in patients using steroids. Since there was no significant difference, the effect of the use of cyclosporine (2), which has been shown to affect myocardial functions and steroid use were not included in the discussion in order to avoid confusion.

Various studies have assessed the use of steroids and particularly long-term use on myocardial functions. One such study by Sali et al. (3) showed that continuous administration of prednisone to mdx mice initially improves skeletal muscle strength, but further therapy results in deterioration of muscle strength and cardiac function, associated with enhanced cardiac fibrosis. Another study was cited by the authors (4). However, to the best of our knowledge, there are no studies showing an association between the presence of fQRS and long-term steroid use.

In conclusion, levels of steroid use in patients with or without fQRS are given in the table, and no significant difference was determined.

This subject was therefore not included in the discussion.

In light of our patient numbers, we do not think it would be right to make any deductions on this subject.

Gülsüm Özkan

Department of Nephrology, Faculty of Medicine, Karadeniz Technical University; Trabzon-Turkey

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Address for Correspondence: Dr. Gülsüm Özkan,
 Karadeniz Teknik Üniversitesi Tıp Fakültesi, Nefroloji Bilim Dalı, 61080 Trabzon-Türkiye
 Phone: +90 462 377 57 11
 Fax: +90 462 325 22 70
 E-mail: gulsumozkan78@hotmail.com

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Contrast nephropathy in patients with well-preserved renal function

To the Editor,

We read with great interest the article by Yıldız et al. (1), "entitled "Relationship between brain natriuretic peptide, microalbuminuria, and contrast-induced nephropathy in patients with acute coronary syndrome," published in the September issue of *The Anatolian Journal of Cardiology* 2014; 14: 505-10, investigating the relationship among contrast-induced nephropathy (CIN), microalbuminuria, and brain-natri-