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Fragmented QRS formation in nonhypertensive acromegaly patients

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To the Editor,

We would like to indicate our satisfaction with your interest in our article [1]. It has been shown that fQRS formation is associated with poor clinical outcomes in many diseases, especially in coronary artery disease [2,3]. The presence of fQRS is an indicator of myocardial fibrosis, so myocardial dysfunction development is more common in patients with fQRS on electrocardiography (ECG) and the cardiovascular prognosis is worse [4,5].

Studies have shown that the extent and localization of fQRS on ECG are among the factors that show the extent of myocardial damage [6,7]. Since acromegaly is a rare disease and our study was a single-center study, the number of patients in our study was relatively small. Another factor in the small number of patients was that the acromegaly patients with hypertension were not included. Since there were not enough number of patients, we could not make a separate analysis to evaluate the relationship between fQRS extent and localization and left ventricular hypertrophy (LVH) parameters. Of course, if the number of our patients was sufficient and we could do these analyzes, the value of our study would increase.

In our study, we showed that LVH parameters in acromegaly patients with fQRS (+) were higher than

those with fQRS (-). These results show that patients with acromegaly who have fQRS on their ECG should be followed more closely for the development of acromegalic cardiomyopathy and cardiovascular disease.

Prior publication

This article is an original letter and it has not been published or submitted for publication elsewhere, in whole or in part, before submission to journal.

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Short Running Title

Fragmented QRS in acromegaly

Key Words: Fragmented QRS, electrocardiography, acromegaly

Response to letter to the editor by Mehmet EYÜBOĞLU entitled "Highlights in the association of fragmented QRS with myocardial fibrosis"

References

1. Dural M, Yorulmaz G, Alagüney ES, Mert KU, Çamlı E et al. Assessment of fragmented QRS formation and its relationship with left ventricular hypertrophy in non-hypertensive acromegaly patients. Turkish Journal of Medical Science 2021; 51(5): 2437–2444. doi:10.3906/sag-2101-229
2. Dural M, Demir L, Babayigit E, Junushova B, Mert KU et al. Fragmented QRS formation and its predictors in patients with breast cancer receiving anthracycline-based chemotherapy. Journal of Electrocardiology 2019; 54: 5–9. doi:10.1016/j.jelectrocard.2019.02.003
3. Eyuboglu M. Fragmented QRS as a Marker of Myocardial Fibrosis in Hypertension: a Systematic Review. Current Hypertension Reports 2019; 21 (10): 73. doi:10.1007/s11906-019-0982-3
4. Das MK, Suradi H, Maskoun W, Michael MA, Shen C et al. Fragmented wide QRS on a 12-lead ECG: a sign of myocardial scar and poor prognosis. Circulation: Arrhythmia and Electrophysiology 2008; 1 (4): 258–268. doi:10.1161/CIRCEP.107.763284

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5. Das MK, Saha C, El Masry H, Peng J, Dandamudi G et al. Fragmented QRS on a 12-lead ECG: a predictor of mortality and cardiac events in patients with coronary artery disease. *Heart Rhythm* 2007; 4 (11): 1385–1392. doi:10.1016/j.hrthm.2007.06.024
6. Eyuboglu M, Kucuk U, Senarslan O, Akdeniz B. Comparison of the presence of fragmented QRS complexes in the inferior versus the anterior leads for predicting coronary artery disease severity. *Revista Portuguesa de Cardiologia* 2017; 36 (2): 89–93. doi:10.1016/j.repc.2016.07.008
7. Torigoe K, Tamura A, Kawano Y, Shinozaki K, Kotoku M et al. The number of leads with fragmented QRS is independently associated with cardiac death or hospitalization for heart failure in patients with prior myocardial infarction. *Journal of Cardiology* 2012; 59 (1): 36–41. doi:10.1016/j.jjcc.2011.09.003