



Dear Colleagues,

We are pleased to share the second issue of our newsletter, featuring news from the ISE, the ISE Young Community and their members, upcoming events, recent literature about electrocardiography and an interview with one of our special guests about the history and future of ECG.

We hope you enjoy this issue and we welcome your feedback. Also, we would most welcome your contributions for the upcoming issues.

The ISE Communication Team

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New Year Celebration

As the ISE family, we wish you well-being and prosperity in the forthcoming year. May all your wishes come true.



News from ISE

- **First International Meeting of ISE Young Community – Save the Date!**

ISE Young Community will hold a scientific meeting soon. This will consist of number of 8 sessions involving more than 30 speakers over two days. Various topics from the roles of ECG in ischemia to artificial intelligence in ECG will be discussed online. Finally, awards for the best abstracts will be given before the closing remarks.

- **Webinar with Local Young Communities – Network with local colleagues!**

New webinars are on the way! In order to develop our international network, we will organize several webinars with young communities from various countries. These meetings will also be an important opportunity for us to see the approaches of different centers to different diseases. Stay tuned to find out the dates.

- **Recent Webinar on ECG in Inherited Arrhythmia Disorders**

The most recent ISE webinar was hosted on 13th December with great attendance and a high quality discussion. Prof. Wojciech Zareba from USA; Prof. Pyotr Platonov from Sweden and Prof. Henning Bundgaard from Denmark talked about the value of ECG in inherited disorders. This is the first one of the two part series and the next one will take place in February 2022.

Recent Publications

1. **Title:** Diagnostic Value Of Scoring Model Of Treadmill Exercise Test Combined With Dynamic Electrocardiogram For Latent Coronary Heart Disease

Contributor: Dr Levent Pay (Turkey)

Full text link: <https://doi.org/10.1016/j.jelectrocard.2021.01.013>

Summary

Wang *et al.* reviewed the role of a scoring model for the treadmill exercise test (TET) combined with dynamic electrocardiogram (DECG) for latent coronary heart disease (LCHD). TET and DECG diagnostic values for LCHD of 200 patients were compared using coronary angiography. Results revealed that TET in combination with DECG has high diagnostic accuracy for LCHD, and the scoring pattern generated by the DECG indicators can significantly improve the accuracy of the combined diagnosis. In addition TET with DECG is significantly better than TET or DECG alone, which has significant diagnostic value for LCHD.

2. **Title:** Diagnostic Performance Of A New ECG Algorithm For Reducing False Positive Cases In Patients Suspected Acute Coronary Syndrome

Contributor: Dr Levent Pay (Turkey)

Full text link: <https://doi.org/10.1016/j.jelectrocard.2021.07.005>

Summary

Fahr *et al.* investigated the performance of a standard algorithm against an additional high specificity setting developed to reduce false positive STEMI diagnoses. In this trial, 2256 patients with an available prehospital ECG were included. This study showed that the application of an automated ECG algorithm with a high specificity setting succeeded in reducing the number of false positive STEMI cases. However, because of low sensitivity/high false negatives, diagnosis of negative AMI should not be based solely on automated ECG analysis.

3. **Title:** His-bundle pacing versus cardiac resynchronisation therapy: Effect on ECG parameters of repolarization

Contributor: Dr Mert İlker Hayıroğlu (Turkey)

Full text link: <https://doi.org/10.1016/j.jelectrocard.2021.08.001>

Summary

Sarkar *et al.* aimed to compare repolarization parameters in ECG between two pacing modalities. Twenty patients treated with His bundle pacing were compared with 18 patients treated with standard biventricular pacing. Repolarization parameters of the patients were followed for 24 hours before implantation and 6 weeks after implantation. In conclusion, His bundle pacing is related with a significant decrease in Tp-e and Tp-e/QTc compared to biventricular pacing. However, further investigation is needed to determine whether this improvement in repolarization indices is related with reduction in clinical arrhythmic events.

4. **Title:** Atrial Substrate Characterization In Patients With Atrial Fibrillation And Hypertrophic Cardiomyopathy: Evidence For An Extensive Fibrotic Disease

Contributor: Dr Caglar Ozmen (Turkey)

Full text link: <https://doi.org/10.1016/j.jelectrocard.2021.06.001>

Summary

Efremidis *et al.* evaluated the extent of left atrial (LA) fibrosis and its effect on catheter ablation outcomes with left atrial electroanatomical substrate in patients with hypertrophic cardiomyopathy (HCM) and atrial fibrillation (AF). Twenty-eight consecutive patients with obstructive HCM and 28 patients with AF without HCM were included in the study. Pulmonary vein antral isolation (PVAI) and roofline were applied to HCM patients, while only PVAI was applied to non-HCM patients. HCM patients with arrhythmia relapse were associated with significantly larger fibrotic areas than those who remained in sinus rhythm. Efremidis *et al.* also found that the presence of larger fibrotic areas was predictive of arrhythmia recurrence with high sensitivity and specificity. The only predictor of AF recurrence was the degree of LA fibrosis, and patients with HCM had larger fibrotic areas with voltages ≤ 0.25 mV than patients without HCM. HCM patients with AF were found to have larger fibrotic areas than the population with AF without HCM.