



# KOUNIS SYNDROME: A RARE EXPERIENCE



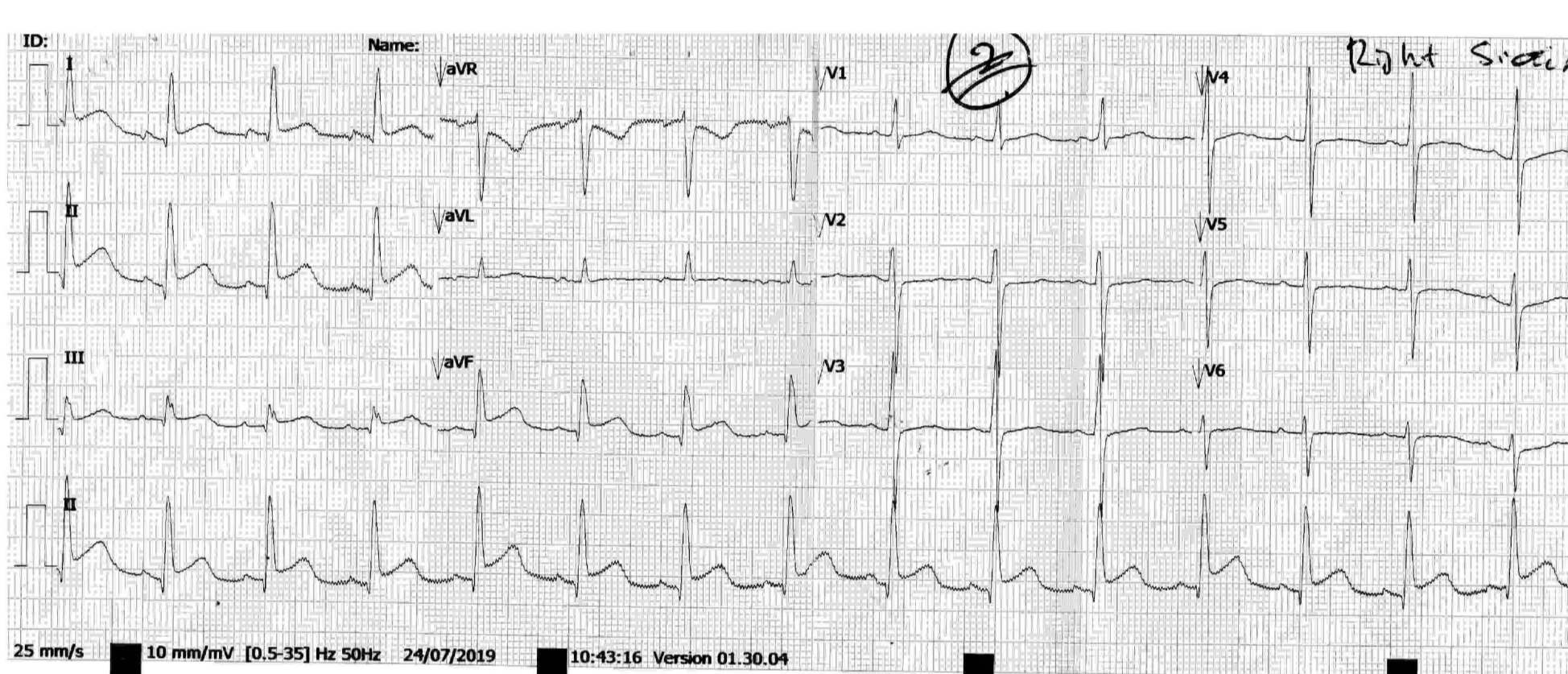
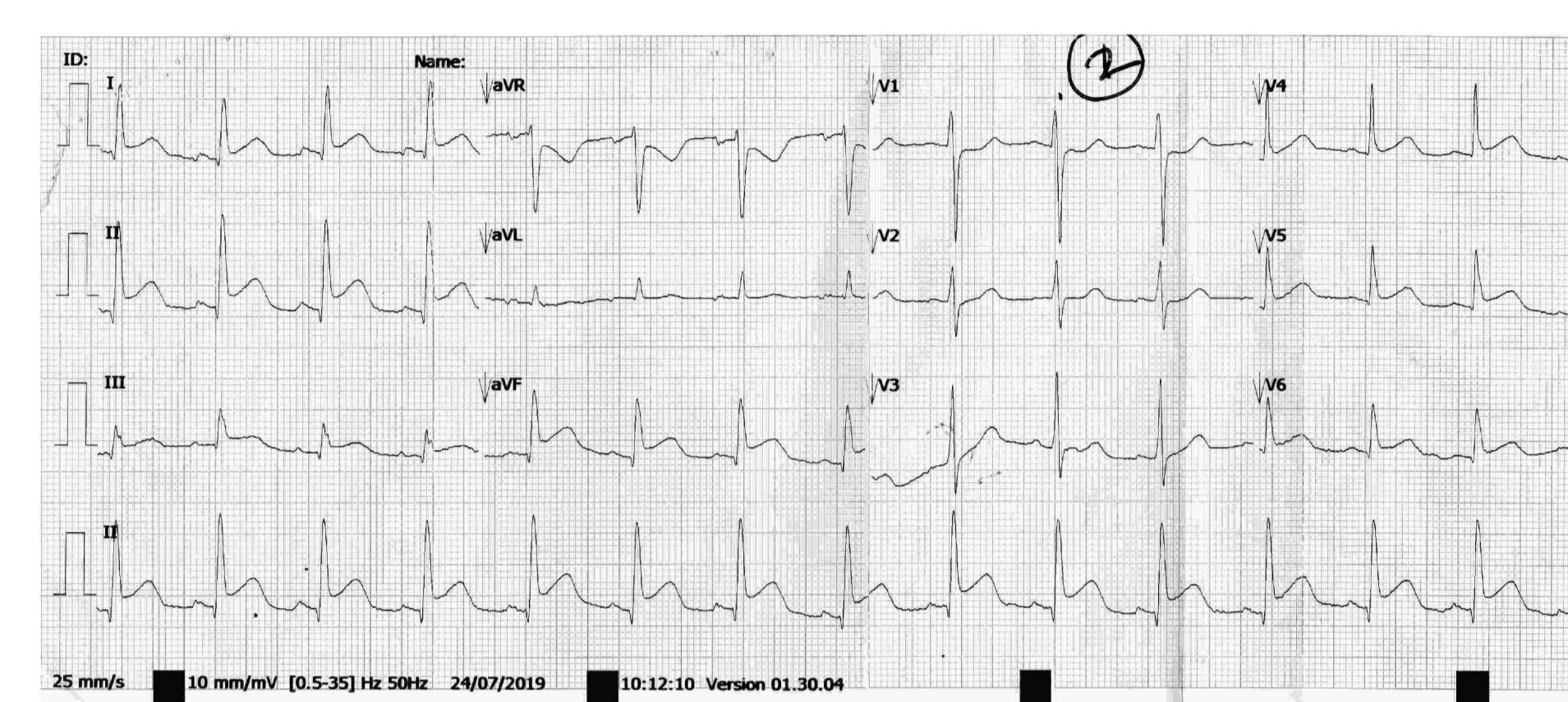
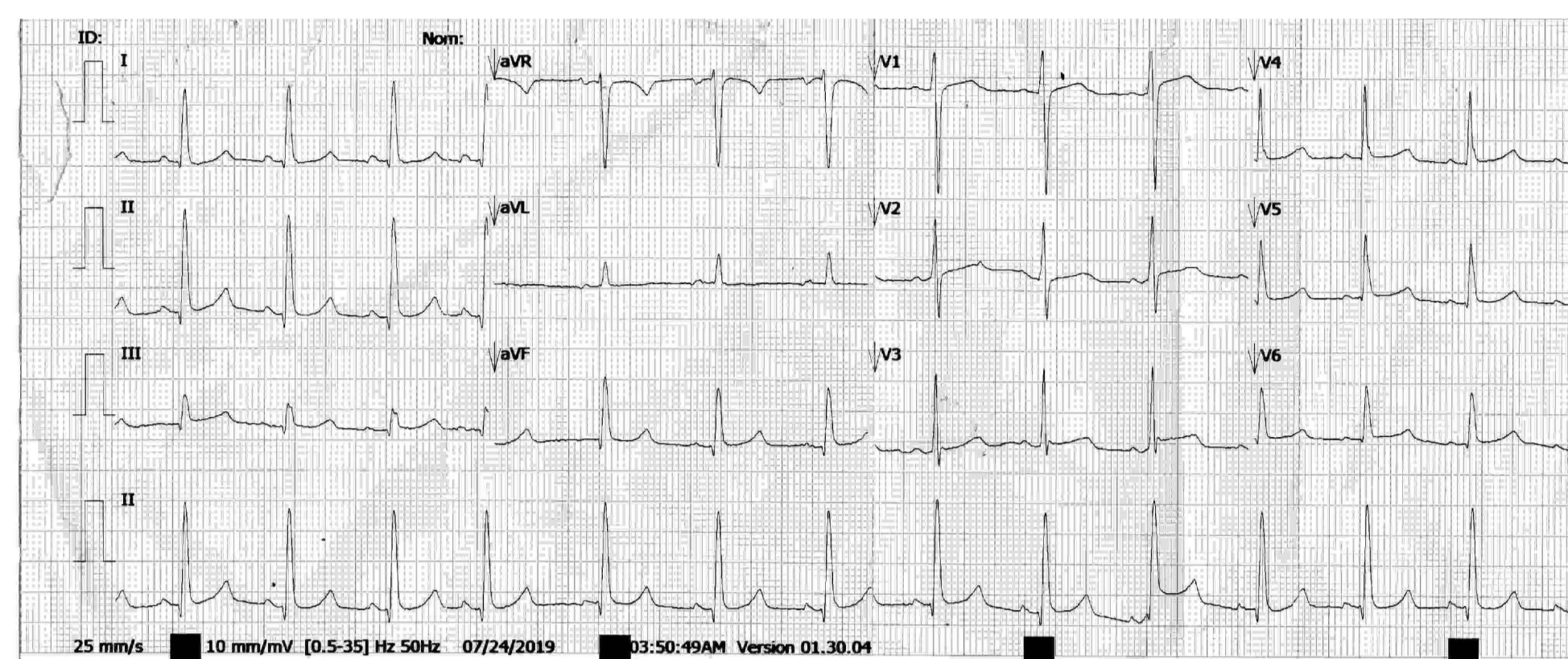
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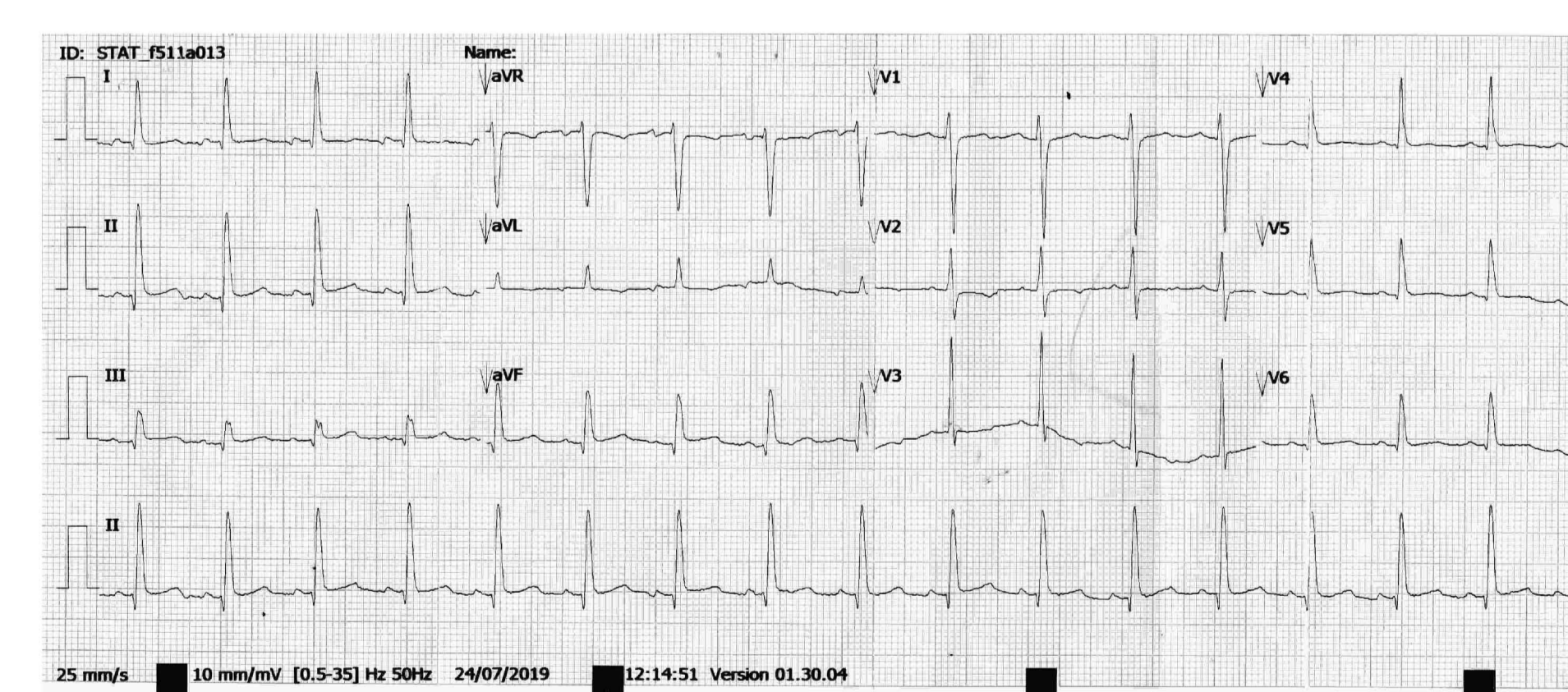
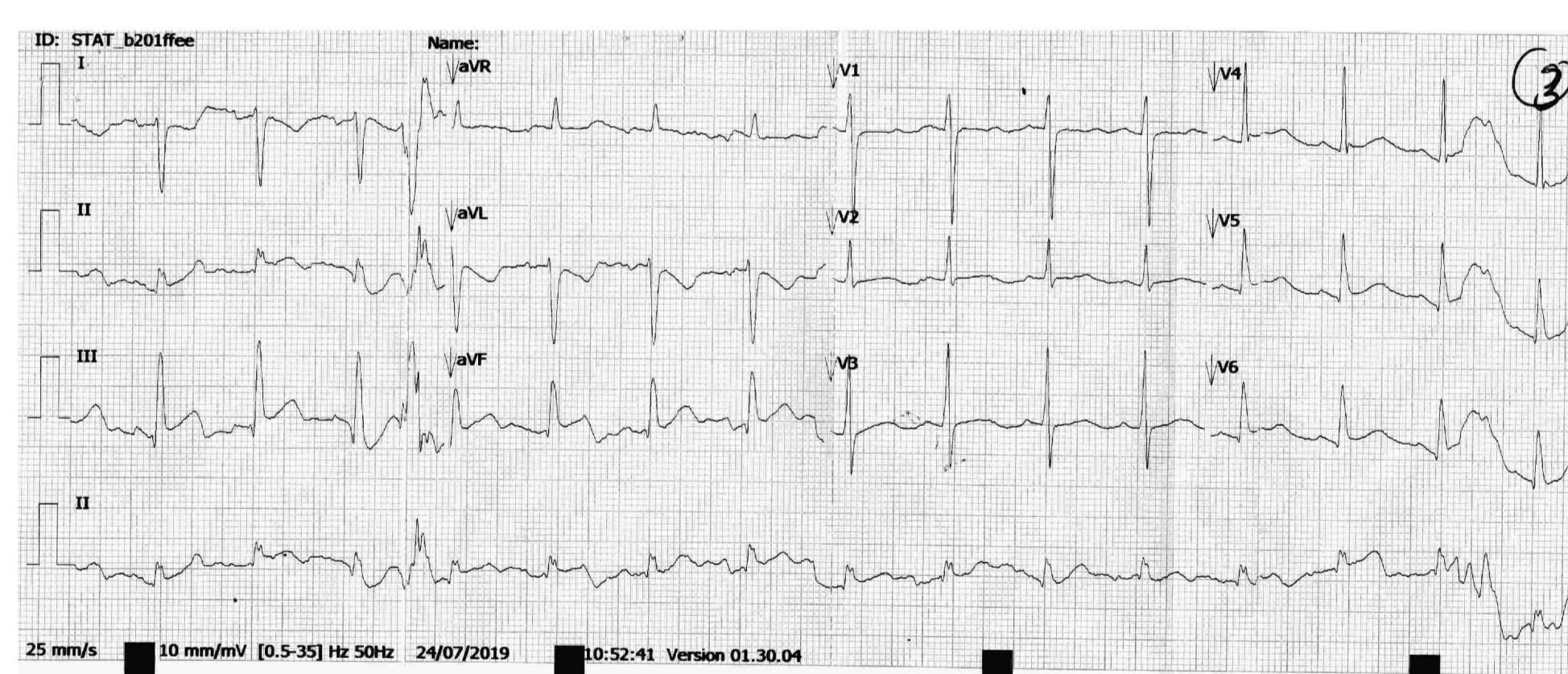
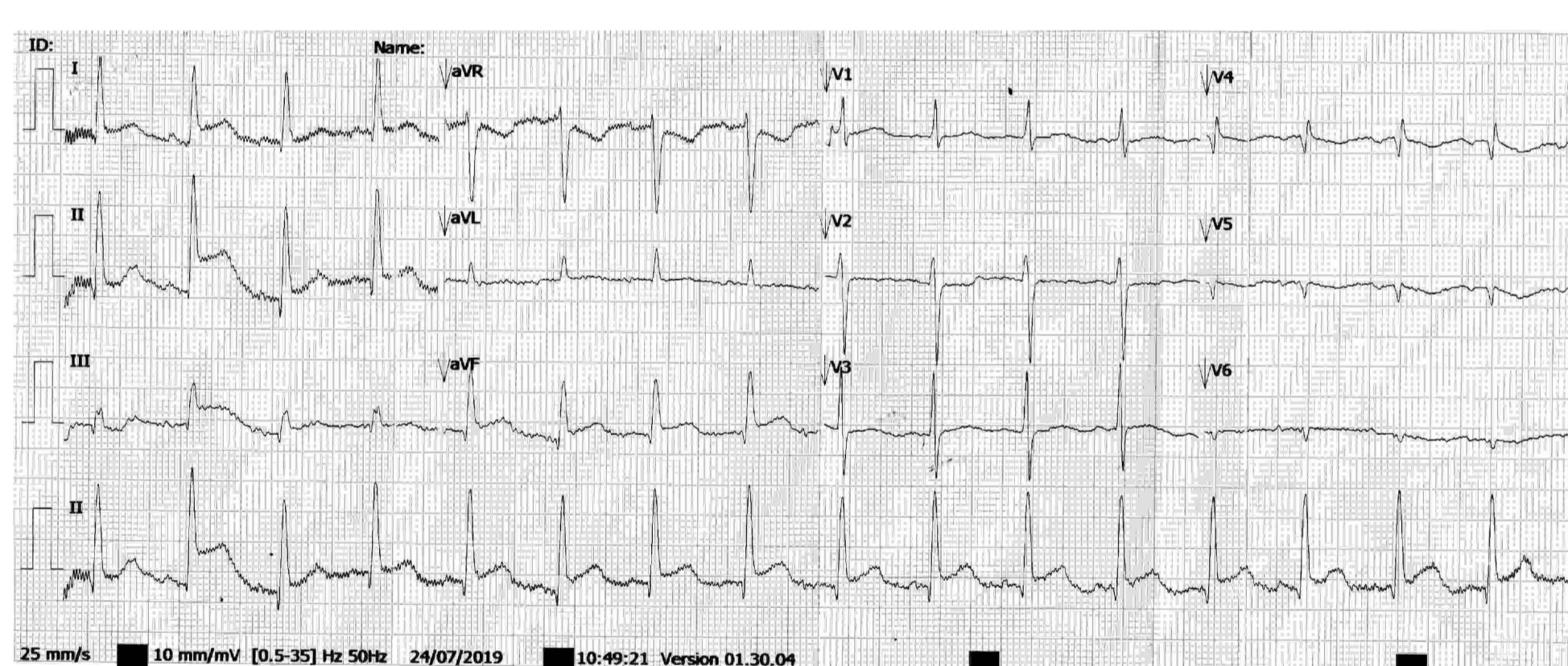
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## Introduction

- ▶ Kounis syndrome was first described by Kounis and Zavras in 1991 as “syndrome of allergic angina”, has been established as a condition associated with mast cell activation including allergic, hypersensitivity, anaphylactic and anaphylactoid reactions that lead to concurrence of Acute Coronary Syndrome.
- ▶ Kounis syndrome has been linked with various conditions, drugs, environmental exposures, foods, and coronary stents.
- ▶ We report a case of Kounis syndrome induced by food ingestion.



### 1. Electrocardiogram pattern on arrival



### 2. Electrocardiogram pattern after given medications

## Case report

- ▶ A 53 years old woman with underlying hypertension and ischemic heart disease was brought to emergency department with a complaint of near-syncopal attack, difficulty in breathing, preceded by unexplained generalized body rashes and itchiness after taken her breakfast.
- ▶ Further history revealed that she ate mackerel-tuna fish for her breakfast.
- ▶ Physical examination on arrival at emergency department showed initial blood pressure of 72/43 mmHg, pulse rate of 71 beats/min regular, afebrile with oxygen saturation of 100%.
- ▶ Electrocardiogram revealed elevation of ST-segment in lead II, III, aVF, compatible with acute inferior myocardial infarction.
- ▶ She was immediately administered 200mg Hydrocortisone, 10mg Chlorpheniramine, 10mg Ranitidine, 0.01mg/kg Epinephrine intravenously. She was also started on intravenous Epinephrine infusion.
- ▶ Her symptoms improved after medications were given and serial Electrocardiogram showed normal sinus rhythm without ischemic changes.

## Discussion

- ▶ Cases of Kounis syndrome often encountered in clinical practice than anticipated.
- ▶ The mechanism Kounis syndrome involves the release of inflammatory mediators through mast cell activation which induces coronary artery spasm and/or atheromatous plaque erosion or rupture.
- ▶ Electrocardiogram findings and associate signs/symptoms may improve after anaphylactic medications given. Thrombolytic therapy was not indicated in treating this case.

## Conclusion

- ▶ Kounis syndrome is a rare phenomenon, mostly due to the lack of awareness of it's signs/symptoms that may lead to underdiagnosed and delay of an appropriate treatment.
- ▶ Therefore, awareness of this syndrome can help physician in making prompt diagnosis and initial treatment.

## References

1. Biteker, M. Current understanding of Kounis syndrome. *Exp Rev Clin Immunol.* 2010; 6: 777–788
2. Kounis NG, Zavras GM. Histamine-induced coronary artery spasm: the concept of allergic angina. *Br J Clin Pract* 1991; 45(2): 121–8.
3. Kounis, N.G., Mazarakis, A., Tsigkas, G. et al. Kounis syndrome: a new twist on an old disease. *Future Cardiol.* 2011; 7: 805–824

