



PEER-REVIEW REPORT

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Reviewer's code: 05185245

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: Japan

Author's Country/Territory: United States

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Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



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SPECIFIC COMMENTS TO AUTHORS

World Journal of Cardiology “Electrocardiographic changes in Emphysema” Gupta P et al. Thanks for inviting me to review the manuscript. In this manuscript, the authors tried to describe various ECG changes in patients with emphysema. well written review which appears clear and concise: the characteristic description of the ECG changes found appears to be exhaustive. However, this manuscript contains a major fatal flaw I cannot overlook as described below. Authors amend following points.

Q1 It is apparent that COPD including Emphysema is an independent risk factor for Atrial fibrillation (20-30%). [PMID: 28188041] Considering that ECG criteria are determined mainly by P -waves, a major limitation of ECG diagnosis in COPD including emphysema is the presence of atrial fibrillation, which cannot be ignored and authors should describe these limitations. Q2 Are there ECG diagnostic criteria that can reliably and specifically diagnose Emphysema even in the presence of atrial fibrillation?

Q3 Many differential diagnoses are needed for P-pulmonale, which is a concept of the past. RAO (right atrial overload), LAO (left atrial overload), longitudinal position of the heart, and electrolyte imbalance have been proposed as causes of P-pulmonale. Rao, lao, electrolytes imbalance, [PMID: 24284921] [PMID: 24099885] [PMID: 14314498] Q4 Considering the mechanism of ECG development in Emphysema, the most important disease to differentiate is a Large Right or Tension Pneumothorax. [PMID: 33757495]