



CLASSIC S1Q3T3 IN LOBAR PNEUMONIA, OTHERWISE POPULARLY ASSOCIATED WITH PULMONARY EMBOLISM

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<p>Article Info Received 15/03/2015 Revised 27/04/2015 Accepted 02/05/2015</p> <p>Key words: Pulmonary Embolism, S1Q3T3, Lobar Pneumonia.</p>	<p>ABSTRACT A 42 y/o male presented to Emergency department with dyspnea. ECG showed classical S1Q3T3 pattern. Patient was diagnosed with lobar pneumonia and pleural effusion. He was treated with antibiotic therapy and follow up showed complete recovery of the patient's symptoms and ECG changes.</p>
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INTRODUCTION

Chest pain is one of the most frequent presenting symptoms with which patients visit Emergency Department [1]. Urgent evaluation and diagnosis is of utmost importance. History, Physical examination, electrocardiogram, Laboratory results, and imaging is frequently used to narrow a possible differential diagnosis from a plethora of life threatening conditions viz. acute coronary syndrome, pulmonary embolism, aortic dissection and aneurysm, pneumonia and pneumothorax [2].

Electrocardiography usually is one of the initial tool to assess the patient for being fast, noninvasive, and usually with no contraindications. Proper and thorough interpretation of ECG help us in diagnosis of several emergent conditions.

CASE REPORT

A 42 y/o male patient presented to our Emergency Department with right sided chest pain since ten days. One day earlier he started to develop dyspnea. He was hypoxic. Auscultation of lungs showed decreased breathing sounds

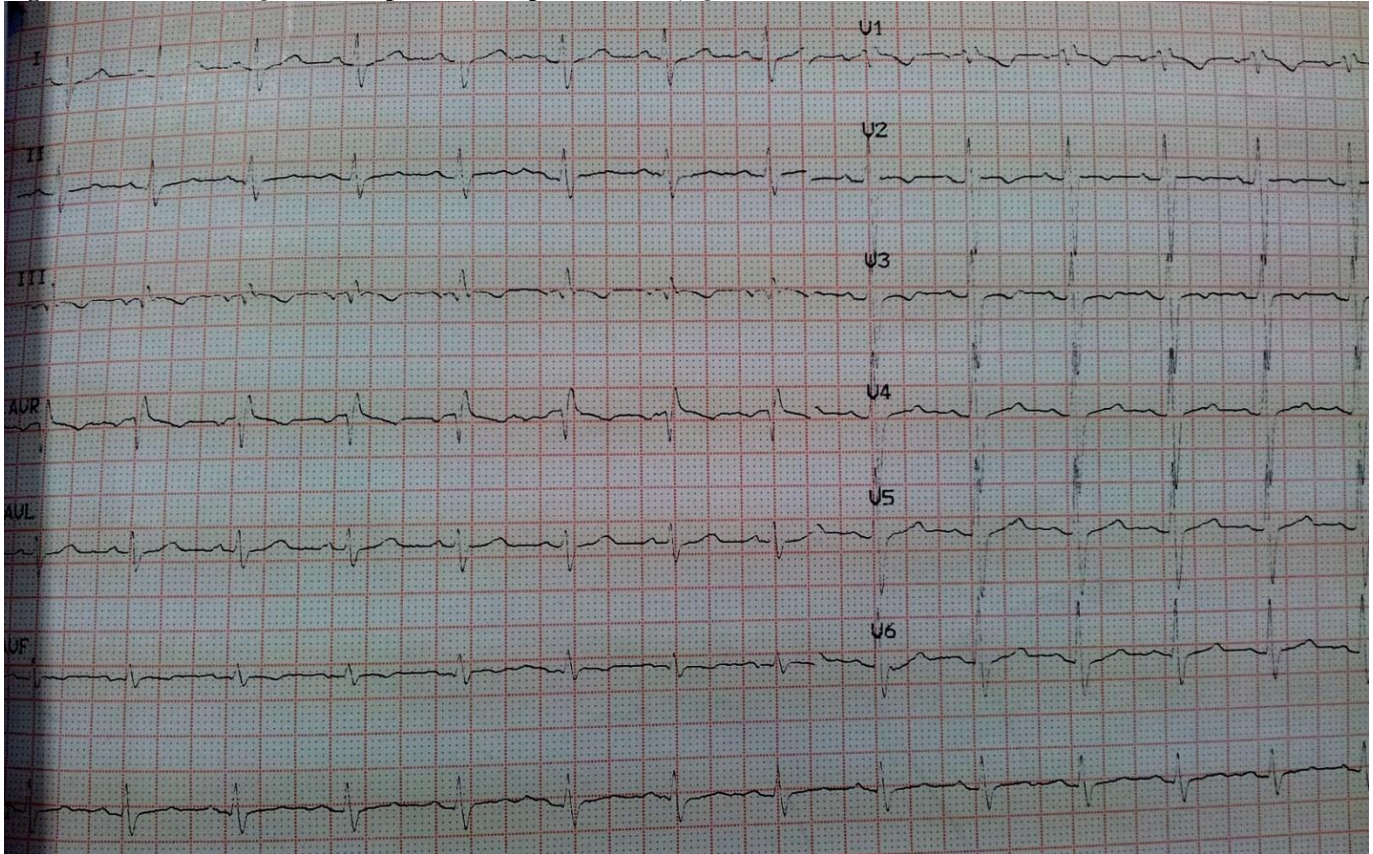
on right side. ECG depicted a typical S1Q3T3 pattern (Fig 1). D-dimer levels were also highly elevated. Chest X-ray showed massive right sided pleural effusion. Chest CT-scan confirmed Right Lung lobar pneumonia with pleural effusion and normal pulmonary vasculature. Patient was treated with broad spectrum intravenous antibiotics leading to resolving of Lobar pneumonia and pleural effusion. After two months of follow up patient is symptom free and there is complete reversal of ECG changes and D-dimer levels.

DISCUSSION AND CONCLUSION

In 1935, McGinn and White described association between acute Pulmonary Embolism and specific ECG changes when they noted S1Q3T3 pattern in seven patients with acute cor pulmonale [3]. Since then this pattern has historically been associated with pulmonary embolism [4, 5, 6]. S1Q3T3 electrocardiographic changes and elevated D-dimer levels may point towards broader differential besides pulmonary embolism [7].



Figure 1. Classical S1Q3T3 EKG pattern; Deep S in Lead 1, Q waves and inverted T in lead 3



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