

A case report on out of hospital cardiac arrest due to alectinib

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Abstract

Introduction Lung cancer is the third most common cancer in the UK. There are approximately 47,800 new lung cancer cases in the UK every year (1). The developments of Tyrosine kinase inhibitors (TKIs) have proven to be a ground breaking discovery in the treatment of lung cancer. However, despite its safety profile and like any other medicine, it has some undesirable effects as well (2). Studies have shown that reversible bradycardia is the most frequently observed cardiac side effect of Alectinib, whereas it mildly affects and increase the QTc interval (3). We report a case of Alectinib induced out of hospital cardiac arrest secondary to prolonged QTc.

Case report: We report a case of 60-year-old British man with limited history of smoking, who was diagnosed with Metastatic Adenocarcinoma of lung (T2b NO M1B) in 2017. His past medical history was of hypertension only and he had no family history of lung malignancy. • He presented to Ambulatory care in 2017 with symptoms of left sided chest pain and shortness of breath. Chest x-ray was done that showed a left upper zone mass, D-dimer was elevated at 687. His CTPA showed Small left upper lobe sub segmental pulmonary embolism and a speculated 5 cm left upper lobe mass occluding a segmental artery - suspicious for a bronchogenic primary tumour, with small metastases in the contralateral lung and a sclerotic lesion in the T9 vertebral body. He was initially started on Dalteparin and later was switched to Rivaroxban. His staging CT (CT Abdominal pelvis) did not show any intraabdominal pathology, however, sclerosis was noted in left ischial tuberosity.

Discussion: This is the case of a man who had an OHCA following starting on Alectinib and was found to have prolonged QTc in the initial ECGs post cardiac arrest. This shows the need of frequent monitoring of QTc on ECGs once patients are started on Alectinib. Alectinib is administered orally and it targets the ALK and RETS genes rearrangement. It can cross blood brain barrier and is used in the treatment of locally and advanced NSCLC.

In our case report, a prophylactic ICD was inserted and patient was started on bisoprolol to reduce the risk of arrhythmias. Also, Alectinib was re-introduced at a reduced dose. Frequent ECG monitoring by trending QTc will help to identify the patients at risk, with early liaison with cardiology will reduce any such episodes.

Conclusion: Our patient suffered from extremely rare side effect of Alectinib Torsades De pointes secondary to

Prolongation of QTc. Subsequent QTc on ECGs post re introduction of reduced dose of Alectinib remained at 420ms and device check revealed no abnormal rhythm. This emphasizes the need of frequent monitoring with ECGs when patients are started at 600 mg BD dose of Alectinib



Biography:

R. Batool working as a ST3 clinical Oncology, RCP physician associate OSCE examiner and Philosophy lover, a genius thought or an intuition. Her area of interests on the fields of Oncology, Tumor, Radiation, lung cancer, bisoprolol and many more.

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