Ibrutinib-related atrial fibrillation – local general hospital experience

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Introduction: Ibrutinib is an orally bioavailable, irreversible inhibitor of Bruton tyrosine kinase that is standard of care in the treatment of chronic lymphocytic leukemia (CLL), in both front-line and relapse/refractory setting. Side effects include cardiac toxicity, commonly atrial fibrillation (AF) and arterial hypertension and increased bleeding risk. Incidence of ibrutinib related AF varies in different reports[1-4].

Patients and Methods: Our aim was to determine the incidence of ibrutinib related AF in our group of CLL patients who were treated from December 2017 until December 2022. We included only CLL patients treated with ibrutinib and excluded patients with history or pretreatment ECG of cardiac arrhythmia. The primary endpoint was the incidence of ibrutinib related AF

Results: We included 14 CLL patients treated with ibrutinib (**Table 1**). Median age of patients was 71 years and they were predominantly male (64%). Median follow-up was 24 months and during that period, one (7%) patient was diagnosed with AF. From known AF risk factors, our patient had only arterial hypertension that was adequately controlled with antihypertensive drug. Echocardiography findings were normal. Atrial fibrillation appeared 12 months into ibrutinib therapy and was grade 1 according to common terminology criteria for adverse events. Treatment strategy was rate control with a beta-blocker and anticoagulation with direct oral anticoagulant for stoke prevention. Ibrutinib therapy was continued and there were no bleeding events.

Conclusion: Our experience demonstrated ibrutinib related AF incidence similar to earlier reports. Hematologists and cardiologists should be aware of this cardiotoxicity and be able to diagnose and manage it adequately.

TABLE 1. Baseline characteristics of patients.

Baseline characteristics	
Total population	14
Male / Female	9 (64%) / 5 (36%)
Age (median / range)	71 y / 56-82 y
History or pretreatment with cardiac arrhythmia in 12-lead electrocardiogram (yes / no)	0 (0%) / 14 (100%)
Pretreatment arterial hypertension (yes / no)	9 (64%) / 5 (36%)

y = year

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LITERATURE

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