43. REAL WORLD EXPERIENCE OF BEDAQUILINE-BASED ANTI-TUBERCULAR REGIME IN MULTI-DRUG RESISTANT TUBERCULOSIS

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BACKGROUND*:* Tuberculosis is an important public healthcare problem in our country. Drug-resistant Tuberculosis is like a smoldering fire that if not controlled will flare up to an uncontrolled inferno. The conventional therapy for multidrug-resistant TB is associated with multiple issues like prolonged duration and various side effects. Newer anti-tubercular drugs are available but there is a lack of real-world evidence of their use. Bedaquiline is a novel drug belonging to the dairlyquinolone group. It has a bactericidal action and works by inhibiting the mycobacterial ATP synthase enzyme limiting the provision of ATP to mycobacterium. **METHODS**: This was an observational study done at a tertiary respiratory care center on MDR TB patients to study the efficacy and adverse event profile of Bedaquiline in a clinical setting by examining the culture and smear conversion time. **RESULTS:** 30 patients with MDR TB were included in the study. 28 patients had Kat G mutation of Isoniazid while 2 patients had InH A resistance. The second line probe assay showed additional resistance to fluoroquinolones in 27 patients and 2 patients had resistance to aminoglycosides. Twenty-one patients were on the first line while 9 patients were on second-line ATT drugs at the time of presentation to our center. The median smear conversion time was 4 weeks while the median culture conversion time was 10 weeks. The average weight gain was 9 kilograms. All patients recovered with a 100 % success rate. There were no life-threatening adverse effects noted, while two patients developed prolonged QTc on ECG. However, the QTc interval was less than 500 ms, and thus bedaquiline was not discontinued. **CONCLUSION**: Our study aims to highlight the use of Bedaquiline-based anti-tubercular therapy in drug-resistant tuberculosis.

Key Words: Bedaquiline, multidrug-resistant tuberculosis, anti-tubercular therapy, culture conversion, adverse effects.