CHAPTER 23

Clozapine-Induced Myocarditis

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INTRODUCTION

Clozapine, the first atypical antipsychotic, is recognized as the most effective therapeutic option in schizophrenia cases resistant to other treatments (1-3). Studies have confirmed the superiority of clozapine compared to alternative atypical antipsychotics in various aspects such as compliance to treatment, patient satisfaction, mortality, suicidality and drug response (4). Clinicians are more likely to prefer clozapine owing to the high efficacy of this agent and the low likelihood of causing extrapyramidal side effects. The side effects of clozapine mainly include agranulocytosis, hepatitis, ileus, epileptic seizure, cardiovascular effects, sedation, hypotension, metabolic syndrome, hypersalivation, and these side effects are the reason clozapine is not positioned as a firstline treatment for psychotic disorders (2-4). The concerning cardiovascular side effects of clozapine, which can be fatal, are myocarditis and cardiomyopathy (5).Typically, myocarditis is acute and occurs within thirty days of initiation of clozapine, while cardiomyopathy tends to be more chronic and occurs months to years later (5-7). Our limited knowledge of the etiology and epidemiology of clozapineinduced myocarditis causes challenges in the monitoring, diagnosis and treatment of this serious side effect, which may lead to fatal outcomes.

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Development of clozapine as a potential pharmacological therapy for schizophrenia dates back to over 5 decades ago (8). Clozapine is known to offer higher

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