



Treatment-Free Remission in Chronic Myeloid Leukemia: A Tunisian Experience

Rim Frikha^{1*}, Moez Elloumi², Hassen Kamoun¹

¹ Department of Medical Genetics, University hospital of Sfax, Tunisia,
² Department of hematology, University hospital of Sfax



Abstract

CONTEXT: Discontinuation of tyrosine kinase inhibitor (TKI) treatment for chronic phase (CP) of chronic myeloid leukemia (CML) patients with a deep molecular response (DMR) has entered standard practice.

OBJECTIVE: In this study, we characterize the treatment-free remission in Tunisian CML patients

DESIGN: This retrospective study collected data of CML patients who had discontinued ITK treatment as part of daily clinical practice in Sfax, Tunisia.

SETTING: Department of Medical Genetics in University Hospital.

PATIENTS OR OTHER PARTICIPANTS: Patients with CML who discontinued their TKI were enrolled.

INTERVENTIONS: Quantitative assessment of the BCR-ABL transcript was performed using the Cepheid Xpert BCR-ABL ultra-assay.

MAIN OUTCOMES MEASURES: We investigated reasons for discontinuation, duration of TKI treatment before discontinuation, molecular response (MR) status at TKI discontinuation and treatment-free remission (TFR)

duration. Molecular recurrence is defined as loss of major molecular response (MMR).

RESULTS: A total of 17 patients who discontinued treatment were enrolled in this study. Reasons for interruption were deep molecular response (n=13), adverse events (n = 1) and pregnancy (n = 3). TFR was maintained in 10 (64.7%) patients with a median follow-up of 26 months (8- 127). The minimum treatment duration before discontinuation was 86 months. Five patients with sustained DMR patients (38.4%) had a molecular recurrence and re-initiated TKI.

CONCLUSIONS: Our study highlights that TKI discontinuation was safe and effective in CML patients who are in sustained deep molecular response with longer TKI treatment duration. A larger study is mandatory for a comprehensive analysis of molecular recurrence in CML patients.

Background

Treatment free remission (TFR) is an opportunity for chronic myeloid leukemia (CML) patients with sustained deep molecular responses. Clinical trials have demonstrated that TFR is clinically feasible in approximately 58% of patients with sufficient Tyrosine Kinase Inhibitor (TKI) response in CML and provided some insights into the probability of successful TKI discontinuation. Currently, TKI discontinuation has entered standard practice.

Objective

In this study, we characterize the treatment-free remission in Tunisian CML patients

Materials & Methods

This retrospective study collected data of CML patients who had discontinued ITK treatment as part of daily clinical practice in Sfax, Tunisia.

We investigated reasons for discontinuation, duration of TKI treatment before discontinuation, molecular response (MR) status at TKI discontinuation and treatment-free remission (TFR) duration. Molecular recurrence is defined as loss of major molecular response (MMR). Quantitative assessment of the BCR-ABL transcript was performed using the Cepheid Xpert BCR-ABL ultra-assay.

Results

A total of 17 patients who discontinued treatment were enrolled in this study. Reasons for interruption were deep molecular response (n=13), adverse events (n = 1) and pregnancy (n = 3). TFR was maintained in 10(64.7%) patients with a median follow-up of 26 months (8- 127).

The minimum treatment duration before discontinuation was 86 months. Five patients with sustained DMR patients (38.4%) had a molecular recurrence and re-initiated TKI.

Table :Follow-up of CML patients who discontinued TKI

	N° of patients (N; %)	Median follow up (months)
Patients with CML who discontinued their TKI	N= 17	117
Patients with Treatment free remission (TFR)	N= 10 (64,7%)	26
Patients lost major molecular response (MMR)	N=5 (38,4%)	23

Discussion

To the best of my knowledge, this is the first African study about treatment-free remission (TFR) in CML patients.

Our study highlights that TKI discontinuation was safe and effective in CML patients who are in sustained deep molecular response with longer TKI treatment duration. A larger study is mandatory for a comprehensive analysis of molecular recurrence in CML patients.

References

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