A real-world study of end tyrosine kinase inhibitor in chronic myeloid leukaemia (EnTIC) in Malaysia

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ABSTRACT

Introduction: The practice of indefinite tyrosine kinase inhibitor (TKI) provision for Chronic Myeloid Leukaemia (CML) has remained unchallenged. Furthermore, the ability of TKIs to eradicate the CML clone is still largely unknown. A multicentred observational study involving major hospitals in Malaysia to observe the clinical practice to End TKI in CML (EnTIC) was performed. The goal of this study was to determine the molecular response to TKI cessation in CML patients by close monitoring of BCR-ABL1. **Materials and Methods:** Patients who received their first line TKI (Imatinib, Nilotinib or Dasatinib) for at least 4 years and achieved major molecular response of MR4 (IS:0.01%) with undetectable BCR-ABL1 transcripts for the two preceding years were recruited. Close clinical and molecular monitoring was performed with monthly BCR-ABL1 molecular analysis. To date, the study has observed 80 patients from January 1st to December 31st, 2021. **Results:** This interim analysis reported the outcome of 80 patients with a follow-up period of 12 months. Twenty-one patients (26.3%) experienced a molecular relapse defined as the loss of a major molecular response (MMR). Relapses occurred after a median time of 3 months (range: 1-8 months). Fifty-nine (73.7%) patients have since been in molecular remission with the longest remission duration achieved is 12 months. **Conclusion:** The preliminary findings showed that cessation of TKI in patients who achieved deep molecular response appears promising, whereby treatment-free remission can be maintained safely. Following this, we hope to develop a method/algorithm that reliably identifies candidate patients who would benefit from TKI discontinuation while safely maintaining treatment-free remission status.

Keywords: TKI, CML, leukaemia, hematology

A systematic review and meta-analysis on herbal medicine for allergic rhinitis

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ABSTRACT

Introduction: Allergic rhinitis (AR) is a prevalent condition that affects people of all ages. With the growing popularity of herbal medicine for AR treatment over the last decade, this review aimed to evaluate the efficacy and safety of single herbs for AR. **Materials and Methods:** We included randomized clinical trials (RCTs), which tested single herbs against untreated/placebo or antihistamines, in patients with clinically diagnosed AR and assessed clinically relevant nasal and quality of life outcomes. Two reviewers independently performed study selection, data collection, risk of bias and evidence certainty assessment. Pairwise meta- analysis was conducted for all quantifiable outcomes to generate pooled outcome estimates. **Results:** Twelve eligible RCTs (n=1036) contributed towards meta-analyses. Single herbs did not clearly improve total nasal symptoms (Standard Deviation of Mean -0.36, 95% CI -0.73 to 0.01; participants=199; studies=4; I2=39%) but appeared to improve rhino-conjunctivitis quality of life (RQLQ) scores (Mean Deviation -0.46, 95% CI -0.84 to -0.07; participants=148; studies=3; I2=0%) and specific symptom scores of rhinorrhoea, nasal congestion, and sneezing compared to placebo. Compared to antihistamines, moderate-certainty evidence showed no significant difference in total nasal symptoms for those treated with single herbs (SMD -0.14, 95% CI -0.46 to 0.18; participants=149; studies=2; I2=0%). Single herbs were generally well tolerated. **Conclusion:** There was no clear evidence on single herbs alleviating overall nasal symptoms of AR. However, limited evidence suggests that RQLQ and specific nasal symptoms may improve. Future clinical trials should have better methodological designs, lower risk of bias, and larger sample sizes.

Keywords: allergic rhinitis; herbal medicine; complementary therapy; hay fever