

Abstract

The effect of Silybum marianum in treatment and prevention of hepatotoxicity in patients undergoing induction therapy for acute lymphoblastic leukemia

Introduction

Using Hepatotoxic drugs in induction phase in patients with acute Lymphoblastic Leukemia increases liver enzymes, therefore, maintenance therapy with other hepatotoxic medications seem to have some difficulties. Recently, effects of treatment with Silymarin in monitoring serum levels of liver enzymes in ALL patients were considered. This study aimed to investigate the effects of Silymarin in treatment and prevention of liver toxicity in patients undergoing induction phase.

Methods

In this clinical trial, patients diagnosed with acute Lymphoblastic Leukemia who underwent induction therapy were enrolled, randomly treated with Silymarin and placebo for 28 days. Laboratory tests were done in patients on days 0, 28 and 56 and results were recorded and analyzed. $P < 0.05$ was considered significant.

Results

30 patients were enrolled. The mean age of patients in MT group was 4.80 ± 2.40 and in placebo group, 5.76 ± 3.31 years. The mean serum ALT and AST levels in our two groups were not significantly different on day 0 and day 28, but showed a significant meaningful difference in day 56 (P-value 0.005 and 0.005).

Conclusion

The use of Silymarin in induction phase of acute Lymphoblastic Leukemia treatment significantly reduces liver enzymes and side effects of chemotherapy.

Keywords: Acute lymphoblastic leukemia, hepatotoxicity, Silymarin.