ORAL PRESENTATIONS

[ID-O#142] Effect of Oral Silymarin in Patient with Acute Hepatotoxic Mushroom Poisoning: An Analysis of a Poison Center Data

Theerapon Tangsuwanaruk[a], Phantakan Tansuwannarat[b], Achara Tongpoo[c], Kanyapak Mirin[c], Charuwan Sriapha[c], Winai Wananukul[a] and Satariya Trakulsrichai[d]

[a]Department of Medicine, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Bangkok, 10400, Thailand; [b]Faculty of Medicine Ramathibodi Hospital, Mahidol University, Samut Prakan, 10540, Thailand; [c]Ramathibodi Poison Center, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Bangkok, 10400, Thailand; [d]Faculty of Medicine Ramathibodi Hospital, Mahidol University, Bangkok, 10400, Thailand

Background: Hepatotoxic mushroom ingestion can cause hepatic failure, including fatality. Although intravenous silibinin may decrease mortality, it is only available in some countries. This study aimed to investigate the efficacy of oral silymarin in decreasing mortality.

Methods: This retrospective observational study involved patients reported to the poison center from January 2023 to May 2024. Eligible criteria were aged 15 years or older, suspected that ingested the hepatotoxic mushroom, and patients with delayed gastrointestinal onset of equal or more than 5 hours or elevated aspartate aminotransferase (AST) or alanine aminotransferase (ALT). Patients who received intravenous silibinin, preexisting liver disease, and pregnancy were excluded. The primary outcome was in-hospital all-cause mortality. The secondary outcome was hospital length of stay (LOS). Multivariable risk regression and linear regression were used.

Results: A total of 55 patients were included, with the majority being male (56.4 %). Eight patients (14.6 %) received silymarin. The mean age was 54.3 ± 18 years. Seven patients died (12.7 %). In univariable analysis, no patient in the silymarin group died compared to the non-silymarin group (0 % versus 14.9 %, risk difference [RD], -0.15, 95 % confidence interval [CI], -0.25 to -0.05, p 0.004). After adjusting for age, sex, maximal values of AST, ALT, total bilirubin, direct bilirubin, international normalized ratio (INR), and creatinine, the silymarin group had low mortality compared to the non-silymarin group (adjusted RD,-0.15, 95 % CI, -0.28 to -0.02, p 0.020). However, the silymarin group had not decreased in hospital LOS (5 versus 4 days, adjusted mean difference, 0.63 days, 95 % CI, -1.13 to 2.38 days, p 0.483) after adjusting for age, sex, maximal values of AST, ALT, total bilirubin, direct bilirubin, INR, and creatinine.

Conclusion: Oral silymarin might be an alternative treatment for hepatotoxic mushroom ingestion, as it may decrease mortality.