

# Sexually Transmitted Diseases, AIDS and Parasitic Infections & Parasitology, Infectious Diseases, STDs and STIs

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## Hepatoprotective effects of vinpocetine and isosorbide-5-mononitrate in experimental *Schistosoma mansoni* infection

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*Schistosoma mansoni* chronically infects million people globally, causing liver fibrosis. Praziquantel (PZQ) is the drug of choice for all human schistosome, yet the drug cannot prevent the advancement of liver fibrosis. So, there is a pressing necessity to develop substitutes/and or adjuvants targeting the scarring process, aiming to prevent the progression to fatal fibrosis. Our study aimed to investigate the hepatoprotective efficacy of the anti-inflammatory drug; vinpocetine, and the vasodilator agent; isosorbide-5-mononitrate (IS-5-MN) in *Schistosoma mansoni*-infected mice using some parasitological and histopathological parameters. PZQ-treated mice revealed significant reductions in hepatic egg load and granuloma count, with non-significant reduction in granuloma diameter and expressed the highest scores of hepatic inflammation and necrosis. While either vinpocetine or IS-5-MN significantly reduced granuloma count and diameter. Moreover, IS-5-MN monotherapy significantly reduced hepatic inflammation and necrosis. The best significant reductions in hydroxyproline and collagen contents were obtained in the mice groups treated with IS-5-MN combined with PZQ or vinpocetine. In conclusion, our results point to vinpocetine and IS-5-MN as a convenient and promising adjuvant agents to PZQ to ameliorate schistosomal liver pathology. Future studies are recommended to reveal the efficacy of vinpocetine, IS-5-MN and PZQ co-administration in schistosomiasis advanced liver fibrosis.

### Biography

El-Beshbishi has completed her PhD-research and Post-doctoral studies from University of Texas Medical Branch, Galveston, Texas-USA. She is Professor of Medical Parasitology, Faculty of Medicine, and Mansoura University, Egypt. She has her expertise in schistosomal therapeutic and immunological studies. She has published more than 30 papers in reputed journals and has been serving as an Editorial Board Member and reviewer of repute.

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