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Fat Burner Induced Acute Liver Injury: Case Series of 4 Patients

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FAT BURNER INDUCED ACUTE LIVER INJURY: CASE SERIES OF 4 PATIENTS

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Abstract

Fat burners are dietary supplements claimed to increase energy expenditure through alterations of the fat metabolism. They are marketed as natural products and their use is thus perceived as a safe body weight reduction strategy. We report on five episodes of liver injury in four patients, associated with consumption of different commercially available fat burners: green tea extract (*Camellia sinensis*), Garcinia gummi-gutta, green coffee beans and spirulina (blue-green algae). The patients were admitted to our department from May 2010 to July 2015. The first patient developed acute liver failure and had to be treated by liver transplantation, while another patient required multiple surgical procedures due to severe hemorrhage following liver biopsy. The last patient was treated for two separate episodes of fat-burner-induced liver injury after ingesting two different products, in 2010 and in 2015 Liver biopsy was performed in all patients and histopathological examination revealed no other cause of liver injury. Viral, autoimmune and metabolic liver diseases were excluded, making unsupervised consumption of fat burners the most likely causative agent.

Key Words: hepatotoxicity, dietary supplements, acute liver injury, liver transplantation

INTRODUCTION

Awareness of the health risks and social implications posed by overweight and obesity has generated a demand for solutions that do not require regular exercise and a healthy diet to achieve adequate control of body weight (1). Fat burners are popular dietary supplements claimed to alter fat metabolism and cause increased energy expenditure (2). These products are not regulated and their popularity is based on marketing rather than their questionable efficacy and safety. Inherently unrestricted internet-based advertising and sales have helped increase both demand for them and their availability (3).