Canalicular cholestasis induced by anabolic steroids


Dear Editor,

The inappropriate use of anabolic steroids is increasing, usually by younger males in an illicit manner. Its identification requires that health care providers keep an eye out for potential liver toxicity (1).

Case report

A previously healthy 19-year-old male was admitted due to jaundice. The rest of the work-up was unremarkable. He reported the use of stanozolol (Winstrol®) 50 mg/48 h, methenolone enantate (Primobolan®) 100 mg/96 h and drostanolone propionate (Masteron®) 200 mg/96 h via intramuscular injections for 56 days. This regimen was discontinued ten days before admission. Lab tests showed a bilirubin level of 41.9 mg/dl, GPT of 114 IU/l, normal GGT and maximum creatinine was 1.2 mg/dl (day +39). Other causes of liver disease, biliary disease and vascular disorders were excluded. A liver biopsy revealed severe parenchymal and canalicular but predominantly centrolobular cholestasis (Fig. 1). The evolution was favorable with spontaneous ad integrum resolution after three months.

Discussion

This is a well-documented case of cholestatic hepatitis attributed to the use of anabolic steroids for esthetic and/or athletic purposes. This condition has distinctive characteristics (that were present in this patient) as compared to hepatotoxicity secondary to conventional drug or herbal remedy use, namely severe hyperbilirubinemia and mildly or non-elevated transaminases (2). Diagnosis is based on appropriate temporal relations and the exclusion of other causes. A biopsy is not essential but may prove useful for uncertain cases. Canalicular cholestasis is traditionally associated with these substances (3). There was a strong temporal association between product use and symptom presentation as well as clinical improvement and discontinuation. A score of six was obtained on the CIOMS/RUCAM scale (4) (likely hepatotoxicity). These products are currently approved for very few conditions and identification of fraudulent use should be reported to the appropriate authorities. Thankfully, spontaneous resolution is the norm (5).
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References


