Finasteride-induced Acute Hepatitis

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Objective: Finasteride is a specific inhibitor of steroid type II 5α-reductase, inhibits the conversion of androgen testosterone to 5 α-dihydrotestosterone (DHT)(1). DHT induces androgenic effects via androgen receptors of the cell nuclei in the organs including the prostate gland, liver, and skin. Thus, Finasteride is used world-wide for the treatments of benign prostatic hyperplasia and androgenetic alopecia(AGA)(2)(3). The increase of social interest on cosmetic matter may provoke further use of this 4-azasteroid compound for the AGA treatment. However, there are few reports available on finasteride toxicity. We report the first AGA case of finasteride-induced acute hepatitis. **Case Report:** A 28-year-old man with jaundice was transferred to our emergency center from a local hospital for the advanced treatment of an acute liver dysfunction. He had had finasteride (1 mg/day) for 2 months for AGA treatment. According to his family, he chose to discontinue taking finasteride 3 days before because of serious general fatigue and poor appetite. The physical examination on admission revealed no abdominal signs. The blood examination suggested an acute hepatitis: AST 2581 IU/L, ALT 5416 IU/L, γ-GTP 177 IU/L, total bilirubin 5.0 mg/dL, direct bilirubin 3.1 mg/dL, LDH 1055 IU/L and APTT 38.0 %. The study showed no evidence of viral and autoimmune hepatitis. The abdominal imaging study showed no liver swelling and ascites. The lymphocytes stimulus test (LST) against finasteride wasestimated as positive. Taken these together, finasteride-induced acute hepatitis was diagnosed. He received steroid pulse therapy (Methyl Predonisorone Sodium Succinate 500 mg/day for 3 days consecutive) immediately after admission. His physical condition and blood test improved rapidly, and returned to normal status 20 days after admission. **Conclusion**: To our best knowledge, this is the first report of the AGA case associated with finasteride-induced acute hepatitis. We deduce that finasteride may cause the hepatic cell damage by an allergic reaction mechanism. **References**: 1. Bull HG, et al. Mechanism- Based Inhibition of Human Steroid 5α-Reductase by Finasteride: Enzyme-Catalyzed Formation of NADP- Dihydrofinasteride, a Potent Bisubstrate Analog Inhibitor. J. Am. Chem. Soc 1996; 118, 2359-2365. 2. Kawashima M, et al. Eur J Dermatol 2004;14(4):247-254. 3. Norwood OT. Male Pattern Baldness: Classification and Incidence. Southern Medical Journal 1975; 68(11):1359-1365.