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Hepatoxicity of *Teucrium polium*

Şifalı bitki *Teucrium polium*'a bağlı hepatotoksisite

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SUMMARY: *Little information is available about the hepatotoxity of some herbal medicines commanly used by the public. We present a 69 year old woman, previously diagnosed as having spastic colon, with episodes of diarrhea and constipation. The patient had been consuming Teucrium polium for two months to treat diarrhoea symptoms. On admission, she was found to be jaundiced with elevated liver enzymes, attributed to T. polium hepatotoxicity when the offending agent was with drawn, the jaundice disappeared and liver enzyme levels returned to normal. When physicians encounter liver disorders of unknown etiology, it is important to rule out the use of common herbal medicines.*

Key words: Herbal medicine, Teucrium polium, hepatotoxicity

ÖZET: *Halk arasında yaygın olarak kullanılan bazı şifalı bitkilerin karaciğer üzerinde hepatotoksik etkileri hakkında yeterli bilgi yoktur. Spastik kolon tanısıyla izlenen, ishal ve kabızlık ataklarından yakınan 69 yaşındaki bir kadın hastanın ishalini tedavi etmek için 2 ay boyunca yavşan otunu (teucrium polium) içmesi sonucu ortaya çıkan akut karaciğer hepatotoksisitesini sunmak istedik. Hastanın yakınmaları ve karaciğer fonksiyonları bu bitkinin alımının kesilmesi üzerine tamamen normale döndü. Sebebi açıklanamayan karaciğer hastalıklarıyla karşılaştığımızda halk arasında kullanımı yaygın olan şifalı bitkilerin de potansiyel bir neden olabileceğini göz önünde tutmalıyız.*

Anahtar sözcükler: Şifalı otlar, Teucrium polium, hepatotoksisite

Little information is available about the hepatotoxic effects of some commonly used herbal medicines. The presentation spectrum of hepatotoxicity arising from the effects of these substances ranges from asymptomatic liver enzyme elevation to acute liver failure. Teucrium polium is widely used by the public as a herbal medicine. The first report of a case of acute liver failure related to Teucrium polium necessitating liver transplantation, was quite recent (1). We present the second reported case in the medical literature of hepatotoxicity caused by a herbal medicine containing Teucrium polium. Unlike the first case report, our patient did not show a fulminant course.

CASE REPORT

A 69 year-old woman was hospitalized on 15 August 1996 with complaints of progressive jaundice, darkening urine and change in stool colour. She had a past medical history of Irritable Bowel Syndrome since 1988. She had suffered from constipation alternating with diarrhoea, passage of mucus per rectum and abdominal discomfort. She had consumed a herbal tea, ten grams of Teucrium polium in a half liter of freshly boiled water per day for the last two months and stated that the diarrhoea had subsided after taking the herbal medicine.

Physical examination of the patient revealed no abnormal findings other than prominent jaundice. Complete blood count, reticulocyte count, serum haptoglobulin level and the peripheral blood smear were normal. Fasting blood sugar was 96 mg/dl, aspartate aminotransferase 820 U/L (N: 8-33), alanine aminotransferase 968 U/L (N: 5-42), alkaline phosphatase 253 U/L (N: 91-258), gamma-glutamyltransferase 149 U/L (N: 5-40), total bilirubine 11.7 mg/dl (N: 0.1-1.2), direct bilirubine 5.9 mg/dL (N: 0.0-0.3), total serum protein 7 gr/dL(N: 6-7.8), albumin 4.5 gr/dL (N: 3.2-4.8), prothrombin time 15.3 sec (N: 11.3-13.1), blood ammonia level 90% gamma. Serum anti-

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HAV IgM, HBsAg, antiHBc IgM, anti-HCV and RNA HCV were negative. Serodiagnosis for recent infection with CMV, EBV and HSV were negative. She also was negative for anti-mitocondrial antibody, anti-smooth muscle antibody and antinuclear antibody. The levels of serum ceruloplasmin, cupremia and serum alpha-1-antitrypsin were normal. Abdominal ultrasonography showed a normal hepatobiliary system and abdominal viscera. Endoscopic retrograde cholangio-pancreatography (ERCP) revealed no pathology. We planned a liver biopsy for histopathologic examination and also a challenge test with teucrium polium but the patient refused all invasive procedures and the challenge test.

Liver enzymes returned to normal within 7 days, following withdrawal of the offending agent. In our opinion there was a causal relationship between the liver disease and Teucrium polium. During the eight months follow-up period, the patient did well and liver enzymes were within normal limits.

DISCUSSION

Teucrium species are widely distributed in the Anatolian region t o Turkey as well as all around the world. They are used for the treatment of diabetes mellitus and hemorrhoid, and as a diuretic, antispasmolytic or expectorating medicine among the public living in Anatolia (2). An another member of the genus, Teucrium chamaedrys is well-defined for its hepatotoxic effects and it has been banned from sale in some countries (1, 3, 4). The same conclusion might be expected for the herbal medicine, Teucrium polium in vivo of its potential hepatotoxicity. We suggest that physicians should take into account the possible use of hepatotoxic herbal medicine when they encounter liver disorders of unknown etiology.

REFERENCES

1. Mattei A, Rucay P, Samuel D, et al. Liver transplantation for severe acute liver failure after herbal medicine (Teucrium polium) administration. J Hepatol 1995; 22: 597.
2. Baytop T. Türkiye'de Bitkilerle Tedavi, İstanbul Üniv. Yay. No. 3255, İstanbul, 1984.
3. Larrey D, Vial T, Pauwels A, et al. Hepatitis after germander (Teucrium chamaedrys) administration: another instance of herbal medicine hepatotoxicity. Ann Intern Med 1992; 117: 129-32.
4. Kousi SA, Mc Murtry RJ, Nelson SD. Hepatotoxicity of germander (Teucrium chamaedrys L) and one of its constituent neoclerodane diterpenes teucrin A in the mouse. Chem Res Toxicol 1994; 7: 850-6.