

References

Licorice

- 1 Monographs on the medicinal uses of plant drugs. Exeter, UK: European Scientific Co-op Phytother, 1997.
- 2 Blumenthal M, ed. The Complete German Commission E Monographs: Therapeutic Guide to Herbal Medicines. Trans. S. Klein. Boston, MA: American Botanical Council, 1998.
- 3 Tyler VE. Herbs of Choice. Binghamton, NY: Pharmaceutical Products Press, 1994.
- 781 Farese RV Jr, Biglieri EG, Shackleton CH, et al. Licorice-induced hypermineralocorticoidism. *N Engl J Med* 1991;325:1223-7. [View abstract](#).
- 1372 Sigurjonsdottir HA, Ragnarsson J, Franzson L, Sigurdsson G. Is blood pressure commonly raised by moderate consumption of liquorice? *J Hum Hypertens* 1995;9:345-8. [View abstract](#).
- 2010 Prudden JF. The treatment of human cancer with agents prepared from bovine cartilage. *J Biol Response Mod* 1985;4:551-84. [View abstract](#).
- 3246 Armanini D, Bonanni G, Palermo M. Reduction of serum testosterone in men by licorice. *N Engl J Med* 1999;341:1158. [View abstract](#).
- 3247 Abe Y, Ueda T, Kato T, Kohli Y. [Effectiveness of interferon, glycyrrhizin combination therapy in patients with chronic hepatitis C]. *Nippon Rinsho* 1994;52:1817-22. [View abstract](#).
- 3248 Takahara T, Watanabe A, Shiraki K. Effects of glycyrrhizin on hepatitis B surface antigen: a biochemical and morphological study. *J Hepatol* 1994;21:601-9. [View abstract](#).
- 3249 Sato H, Goto W, Yamamura J, et al. Therapeutic basis of glycyrrhizin on chronic hepatitis B. *Antiviral Res* 1996;30:171-7. [View abstract](#).
- 3250 Acharya SK, Dasarathy S, Tandon A, et al. A preliminary open trial on interferon stimulator (SNMC) derived from Glycyrrhiza glabra in the treatment of subacute hepatic failure. *Indian J Med Res* 1993;98:69-74. [View abstract](#).
- 3251 Zhang XH, Lowe D, Giles P, et al. Gender may affect the action of garlic oil on plasma cholesterol and glucose levels of normal subjects. *J Nutr* 2001;131:1471-8. [View abstract](#).
- 3252 Armanini D, Lewicka S, Pratesi C, et al. Further studies on the mechanism of the mineralocorticoid action of licorice in humans. *J Endocrinol Invest* 1996;19:624-9. [View abstract](#).
- 3254 Lee YS, Lorenzo BJ, Koufis T, et al. Grapefruit juice and its flavonoids inhibit 11 beta-hydroxysteroid dehydrogenase. *Clin Pharmacol Ther* 1996;59:62-71. [View abstract](#).
- 3255 Zhang YD, Lorenzo B, Reidenberg MM. Inhibition of 11 beta hydroxysteroid dehydrogenase obtained from guinea pig kidney by furosemide, naringenin and some other compounds. *J Steroid Biochem Mol Biol* 1994;49:81-5. [View abstract](#).
- 3257 Kase Y, Saitoh K, Ishige A, et al. Mechanisms by which Hange-shashin-to reduces prostaglandin E2 levels. *Biol Pharm Bull* 1998;21:1277-81. [View abstract](#).
- 4912 Electronic Code of Federal Regulations. Title 21. Part 182 -- Substances Generally Recognized As Safe. Available at:
<https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=182>

- 6180
- Eagon PK, Elm MS, Hunter DS, et al. Medicinal herbs: modulation of estrogen action. Era of Hope Mtg, Dept Defense; Breast Cancer Res Prog, Atlanta, GA 2000;Jun 8-11.
- 6196
- Armanini D, De Palo CB, Mattarello MJ, et al. Effect of licorice on reduction of body fat mass in healthy subjects. J Endocrinol Invest 2003;26:646-50. [View abstract](#).
- 6286
- Pfeifer BL, Pirani JF, Hamann SR, Klippe KF. PC-SPES, a dietary supplement for the treatment of hormone-refractory prostate cancer. BJU Int 2000;85:481-5. [View abstract](#).
- 7049
- Holtmann G, Madisch A, Juergen H, et al. A double-blind, randomized, placebo-controlled trial on the effects of an herbal preparation in patients with functional dyspepsia [Abstract]. Ann Mtg Digestive Disease Week 1999 May.
- 7620
- Sigurjonsdottir HA, Franzson L, Manhem K, et al. Liquorice-induced rise in blood pressure: a linear dose-response relationship. J Hum Hypertens 2001;15:549-52. [View abstract](#).
- 7860
- Amato P, Christophe S, Mellon PL. Estrogenic activity of herbs commonly used as remedies for menopausal symptoms. Menopause 2002;9:145-50. [View abstract](#).
- 10299
- Cinatl J, Morgenstern B, Bauer G, et al. Glycyrrhizin, an active component of liquorice roots, and replication of SARS-associated coronavirus. Lancet 2003;361:2045-6.. [View abstract](#).
- 10300
- Kent UM, Aviram M, Rosenblat M, Hollenberg PF. The licorice root derived isoflavan glabridin inhibits the activities of human cytochrome P450S 3A4, 2B6, and 2C9. Drug Metab Dispos 2002;30:709-15.. [View abstract](#).
- 10393
- Yoshida S, Takayama Y. Licorice-induced hypokalemia as a treatable cause of dropped head syndrome. Clin Neurol Neurosurg 2003;105:286-7.. [View abstract](#).
- 10617
- Tamir S, Eizenberg M, Somjen D, et al. Estrogenic and antiproliferative properties of glabridin from licorice in human breast cancer cells. Cancer Res 2000;60:5704-9.. [View abstract](#).
- 10619
- Hussain RM. The sweet cake that reaches parts other cakes can't! Postgrad Med J 2003;79:115-6.. [View abstract](#).
- 11311
- van Marle J, Aarsen PN, Lind A, van Weeren-Kramer J. Deglycyrhizinated liquorice (DGL) and the renewal of rat stomach epithelium. Eur J Pharmacol 1981;72:219-25.. [View abstract](#).
- 11312
- Turpie AG, Runcie J, Thomson TJ. Clinical trial of deglycyrhizinated liquorice in gastric ulcer. Gut 1969;10:299-302. [View abstract](#).
- 11313
- Tewari SN, Wilson AK. Deglycyrhizinated liquorice in duodenal ulcer. Practitioner 1973;210:820-3. [View abstract](#).
- 12382
- Amaryan G, Astvatsatryan V, Gabrielyan E, et al. Double-blind, placebo-controlled, randomized, pilot clinical trial of ImmunoGuard--a standardized fixed combination of Andrographis paniculata Nees, with Eleutherococcus senticosus Maxim, Schizandra chinensis Bail. and Glycyrrhiza glabra L. extracts in patients with Familial Mediterranean Fever. Phytomedicine 2003;10:271-85. [View abstract](#).
- 12627
- Sheehan M, Rustin MHA, Atherton DJ, et al. Efficacy of traditional Chinese herbal therapy in adult atopic dermatitis. Lancet 1992;340:13-17. [View abstract](#).
- 12628
- Sheehan MP, Atherton DJ. A controlled trial of traditional Chinese medicinal plants in widespread non-exudative atopic eczema. Br J Dermatol 1992;126:179-84. [View abstract](#).
- 12629

- Zhang W, Leonard T, Bath-Hextall F, et al. Chinese herbal medicine for atopic eczema. Cochrane Database Syst Rev 2004;4:CD002291. [View abstract](#). **12630**
- Fung AY, Look PC, Chong LY, et al. A controlled trial of traditional Chinese herbal medicine in Chinese patients with recalcitrant atopic dermatitis. Int J Dermatol 1999;38:387-92 . [View abstract](#). **12671**
- Morris DJ, Davis E, Latif SA. Licorice, tobacco chewing, and hypertension. N Engl J Med 1990;322:849-50. **12672**
- Quinkler M, Stewart PM. Hypertension and the cortisol-cortisone shuttle. J Clin Endocrinol Metab 2003;88:2384-92. [View abstract](#). **12724**
- Madisch A, Holtmann G, Mayr G, et al. Treatment of functional dyspepsia with a herbal preparation. A double-blind, randomized, placebo-controlled, multicenter trial. Digestion 2004;69:45-52. [View abstract](#). **12837**
- Westman EC, Guthrie GP. Licorice, tobacco chewing, and hypertension. N Engl J Med 1990;322:850. **13072**
- Armanini D, Bonanni G, Mattarello MJ, et al. Licorice consumption and serum testosterone in healthy man. Exp Clin Endocrinol Diabetes 2003;111:341-3. [View abstract](#). **13089**
- Melzer J, Rosch W, Reichling J, et al. Meta-analysis: phytotherapy of functional dyspepsia with the herbal drug preparation STW 5 (Iberogast). Aliment Pharmacol Ther 2004;20:1279-87. [View abstract](#). **13551**
- Hyodo T, Taira T, Kumakura M, et al. The immediate effect of Shakuyaku-kanzo-to, traditional Japanese herbal medicine, for muscular cramps during maintenance hemodialysis. Nephron 2002;90:240. [View abstract](#). **13552**
- Hinoshita F, Ogura Y, Suzuki Y, et al. Effect of orally administered shao-yao-gan-cao-tang (Shakuyaku-kanzo-to) on muscle cramps in maintenance hemodialysis patients: a preliminary study. Am J Chin Med 2003;31:445-53. . [View abstract](#). **14441**
- Mu Y, Zhang J, Zhang S, et al. Traditional Chinese medicines Wu Wei Zi (Schisandra chinensis Baill) and Gan Cao (Glycyrrhiza uralensis Fisch) activate pregnane X receptor and increase warfarin clearance in rats. J Pharmacol Exp Ther 2006;316:1369-77. [View abstract](#). **15589**
- Yasue H, Itoh T, Mizuno Y, Harada E. Severe hypokalemia, rhabdomyolysis, muscle paralysis, and respiratory impairment in a hypertensive patient taking herbal medicines containing licorice. Intern Med 2007;46:575-8. [View abstract](#). **15590**
- Brayley J, Jones J. Life-threatening hypokalemia associated with excessive licorice ingestion (letter). Am J Psychiatry 1994;151:617-8. [View abstract](#). **15591**
- de Klerk GJ, Nieuwenhuis G, Beutler JJ. Hypokalaemia and hypertension associated with use of liquorice flavoured chewing gum. BMJ 1997;314:731-2. [View abstract](#). **15592**
- Dellow EL, Unwin RJ, Honour JW. Pontefract cakes can be bad for you: refractory hypertension and liquorice excess. Nephrol Dial Transplant 1999;14:218-20. [View abstract](#). **15593**
- Elinav E, Chajek-Shaul T. Licorice consumption causing severe hypokalemic paralysis. Mayo Clin Proc 2003;78:767-8. [View abstract](#). **15594**
- Eriksson JW, Carlberg B, Hillom V. Life-threatening ventricular tachycardia due to liquorice-induced hypokalemia. J Intern Med 1999;245:307-10. [View abstract](#).

- 15595
- Janse A, van Iersel M, Hoefnagels WH, Olde Rikker MG. The old lady who liked liquorice: hypertension due to chronic intoxication in a memory-impaired patient. *Neth J Med* 2005;63:149-50. [View abstract.](#)
- 15596
- Lin SH, Yang SS, Chau T, Halperin ML. An unusual cause of hypokalemic paralysis: chronic licorice ingestion. *Am J Med Sci* 2003;325:153-6. [View abstract.](#)
- 15597
- van den Bosch AE, van der Klooster JM, Zuidgeest DM, et al. Severe hypokalemic paralysis and rhabdomyolysis due to ingestion of liquorice. *Neth J Med* 2005;63:146-8. [View abstract.](#)
- 15598
- van Uum SH. Liquorice and hypertension. *Neth J Med* 2005;63:119-20. [View abstract.](#)
- 15599
- Russo S, Mastropasqua M, Mosetti MA, et al. Low doses of liquorice can induce hypertension encephalopathy. *Am J Nephrol* 2000;20:145-8. [View abstract.](#)
- 15600
- Stormer FC, Reistad R, Alexander J. Glycyrrhetic acid in liquorice - evaluation of health hazard. *Food Chem Toxicol* 1993;31:303-12. [View abstract.](#)
- 16057
- Sontia B, Mooney J, Gaudet L, Touyz RM. Pseudohyperaldosteronism, liquorice, and hypertension. *J Clin Hypertens (Greenwich)* 2008;10:153-7. [View abstract.](#)
- 16058
- Francini-Pesenti F, Puato M, Piccoli A, Brocadello F. Liquorice-induced hypokalaemia and water retention in the absence of hypertension. *Phytother Res* 2008;22:563-5. [View abstract.](#)
- 16835
- Lapi F, Gallo E, Bernasconi S, et al. Myopathies associated with red yeast rice and liquorice: spontaneous reports from the Italian Surveillance System of Natural Health Products. *Br J Clin Pharmacol* 2008;66:572-4. [View abstract.](#)
- 17727
- Bell ZW, Canale RE, Bloomer RJ. A dual investigation of the effect of dietary supplementation with licorice flavonoid oil on anthropometric and biochemical markers or health and adiposity. *Lipids Health Dis* 2011;10:29. [View abstract.](#)
- 19532
- Madisch A, Melderis H, Mayr G, et al. [A plant extract and its modified preparation in functional dyspepsia. Results of a double-blind placebo controlled comparative study]. *Z Gastroenterol* 2001;39(7):511-7. [View abstract.](#)
- 20040
- Chen MF, Shimada F, Kato H, Yano S, Kanaoka M. Effect of glycyrrhizin on the pharmacokinetics of prednisolone following low dosage of prednisolone hemisuccinate. *Endocrinol Jpn* 1990;37:331-41. [View abstract.](#)
- 20042
- Teelucksingh S, Mackie AD, Burt D, McIntyre MA, Brett L, Edwards CR. Potentiation of hydrocortisone activity in skin by glycyrrhetic acid. *Lancet* 1990;335(8697):1060-3. [View abstract.](#)
- 20045
- Heidemann HT, Kreuzfelder E. Hypokalemic rhabdomyolysis with myoglobinuria due to liquorice ingestion and diuretic treatment. *Klin Wochenschr* 1983;61:303-5. [View abstract.](#)
- 20046
- Hukkanen J, Ukkola O, Savolainen MJ. Effects of low-dose liquorice alone or in combination with hydrochlorothiazide on the plasma potassium in healthy volunteers. *Blood Press* 2009;18:192-5. [View abstract.](#)
- 20058
- Kraus SD, Kaminskis A. The anti-estrogenic action of beta-glycyrrhetic acid. *Exp Med Surg* 1969;27:411-20. [View abstract.](#)
- 25670

- Gupta D, Agrawal S, Sharma JP. Effect of preoperative licorice lozenges on incidence of postextubation cough and sore throat in smokers undergoing general anesthesia and endotracheal intubation. *Middle East J Anaesthesiol*. 2013 Jun;22(2):173-8. [View abstract](#). **25694**
- Menati L, Khaleghinezhad K, Tadayon M, Siahpoosh A. Evaluation of contextual and demographic factors on licorice effects on reducing hot flashes in postmenopause women. *Health Care Women Int*. 2014 Jan;35(1):87-99. [View abstract](#). **26434**
- Räikkönen K, Seckl JR, Heinonen K, Pyhälä R, Feldt K, Jones A, Pesonen AK, Phillips DI, Lahti J, Järvenpää AL, Eriksson JG, Matthews KA, Strandberg TE, Kajantie E. Maternal prenatal licorice consumption alters hypothalamic-pituitary-adrenocortical axis function in children. *Psychoneuroendocrinology*. 2010 Nov;35(10):1587-93. [View abstract](#). **31002**
- Baykul, T., Alanoglu, E. G., and Kocer, G. Use of Ankaferd Blood Stopper as a hemostatic agent: a clinical experience. *J Contemp Dent Pract* 2010;11(1):E088-E094. [View abstract](#). **31003**
- Purnak, T., Ozaslan, E., Beyazit, Y., and Haznedoroglu, I. C. Upper gastrointestinal bleeding in a patient with defective hemostasis successfully treated with ankaferd blood stopper. *Phytother.Res*. 2011;25(2):312-313. [View abstract](#). **31010**
- Eyi, E. G., Engin-Ustun, Y., Kaba, M., and Mollamahmutoglu, L. Ankaferd blood stopper in episiotomy repair. *Clin Exp Obstet Gynecol* 2013;40(1):141-143. [View abstract](#). **31561**
- Chamberlain, J. J. and Abolnik, I. Z. Pulmonary edema following a licorice binge. *West J Med* 1997;167(3):184-185. [View abstract](#). **31563**
- Cataldo, F., Di Stefano, P., Violante, M., Traverso, G., and Mule, M. [Pseudohyperaldosteronism secondary to licorice poisoning associated with hemorrhagic gastritis]. *Pediatr Med Chir* 1997;19(3):219-221. [View abstract](#). **32825**
- Brush, J., Mendenhall, E., Guggenheim, A., Chan, T., Connelly, E., Soumyanath, A., Buresh, R., Barrett, R., and Zwickey, H. The effect of *Echinacea purpurea*, *Astragalus membranaceus* and *Glycyrrhiza glabra* on CD69 expression and immune cell activation in humans. *Phytother Res* 2006;20(8):687-695. [View abstract](#). **33020**
- Chien, C. F., Wu, Y. T., and Tsai, T. H. Biological analysis of herbal medicines used for the treatment of liver diseases. *Biomed.Chromatogr*. 2011;25(1-2):21-38. [View abstract](#). **35462**
- Hawrelak, J. A. and Myers, S. P. Effects of two natural medicine formulations on irritable bowel syndrome symptoms: a pilot study. *J Altern Complement Med* 2010;16(10):1065-1071. [View abstract](#). **35748**
- Xu, L., Jiang, J., and Du, F. Z. [Application of dannang recipe no. 2 in the perioperative stage of laparoscopic cholecystectomy]. *Zhongguo Zhong.Xi.Yi.Jie.He.Za Zhi* 2008;28(12):1090-1092. [View abstract](#). **40676**
- Reuter, J., Merfort, I., and Schempp, C. M. Botanicals in dermatology: an evidence-based review. *Am J Clin Dermatol* 2010;11(4):247-267. [View abstract](#). **48383**
- Liang, R. N., Liu, J., and Lu, J. [Treatment of refractory polycystic ovary syndrome by bushen huoxue method combined with ultrasound-guided follicle aspiration]. *Zhongguo Zhong Xi Yi Jie He Za Zhi* 2008;28(4):314-317. [View abstract](#). **48429**
- Fugh-Berman, A. Herb-drug interactions. *Lancet* 2000;355(9198):134-138. [View abstract](#). **49769**

Hasani-Ranjbar, S., Nayebi, N., Moradi, L., Mehri, A., Larijani, B., and Abdollahi, M. The efficacy and safety of herbal medicines used in the treatment of hyperlipidemia; a systematic review. Curr.Pharm.Des 2010;16(26):2935-2947. [View abstract](#).

52081

Goto, F., Asama, Y., and Ogawa, K. Sho-saiko-to-ka-kikyo-sekko as an alternative treatment for chronic tonsillitis to avoid surgery. Complement Ther Clin Pract. 2010;16(4):216-218. [View abstract](#).

59708

Luper, S. A review of plants used in the treatment of liver disease: part two. Altern Med Rev 1999;4(3):178-188. [View abstract](#).

59710

Hossain, M. S., Takimoto, H., Hamano, S., Yoshida, H., Ninomiya, T., Minamishima, Y., Kimura, G., and Nomoto, K. Protective effects of hochu-ekki-to, a Chinese traditional herbal medicine against murine cytomegalovirus infection. Immunopharmacology 1999;41(3):169-181. [View abstract](#).

59712

van Rossum, T. G., Vulto, A. G., Hop, W. C., Brouwer, J. T., Niesters, H. G., and Schalm, S. W. Intravenous glycyrrhizin for the treatment of chronic hepatitis C: a double-blind, randomized, placebo-controlled phase I/II trial. J Gastroenterol Hepatol 1999;14(11):1093-1099. [View abstract](#).

59713

van Rossum, T. G., Vulto, A. G., Hop, W. C., and Schalm, S. W. Pharmacokinetics of intravenous glycyrrhizin after single and multiple doses in patients with chronic hepatitis C infection. Clin Ther 1999;21(12):2080-2090. [View abstract](#).

59714

Dobbins, K. R. and Saul, R. F. Transient visual loss after licorice ingestion. J Neuroophthalmol. 2000;20(1):38-41. [View abstract](#).

59715

Doeker, B. M. and Andler, W. Liquorice, growth retardation and Addison's disease. Horm.Res 1999;52(5):253-255. [View abstract](#).

59718

van Gelderen, C. E., Bijlsma, J. A., van Dokkum, W., and Savelkoul, T. J. Glycyrrhizic acid: the assessment of a no effect level. Hum.Exp Toxicol. 2000;19(8):434-439. [View abstract](#).

59721

van Rossum, T. G., Vulto, A. G., Hop, W. C., and Schalm, S. W. Glycyrrhizin-induced reduction of ALT in European patients with chronic hepatitis C. Am J Gastroenterol 2001;96(8):2432-2437. [View abstract](#).

59723

Serra, A., Uehlinger, D. E., Ferrari, P., Dick, B., Frey, B. M., Frey, F. J., and Vogt, B. Glycyrrhetic Acid decreases plasma potassium concentrations in patients with anuria. J Am Soc Nephrol 2002;13(1):191-196. [View abstract](#).

59724

Zhou, Y., Huang, Z., and Huang, T. [Clinical study of shengxue mixture in treating aplastic anemia]. Zhongguo Zhong.Xi.Yi.Jie.Za Zhi. 2000;20(3):173-175. [View abstract](#).

59725

Fuhrman, B., Volkova, N., Kaplan, M., Presser, D., Attias, J., Hayek, T., and Aviram, M. Antiatherosclerotic effects of licorice extract supplementation on hypercholesterolemic patients: increased resistance of LDL to atherogenic modifications, reduced plasma lipid levels, and decreased systolic blood pressure. Nutrition 2002;18(3):268-273. [View abstract](#).

59726

Sigurjonsdottir, H. A., Manhem, K., Axelson, M., and Wallerstedt, S. Subjects with essential hypertension are more sensitive to the inhibition of 11 beta-HSD by liquorice. J Hum Hypertens 2003;17(2):125-131. [View abstract](#).

59727

Luo, Y. G., Liu, Y. Q., and Hu, J. [Clinical study on effect of recombinant roasted licorice decoction combined with low-dose glucocorticoids in treating idiopathic thrombocytopenic purpura]. Zhongguo Zhong.Xi.Yi.Jie.Za Zhi. 2001;21(7):501-503. [View abstract](#).

59728

Lin, J. C. Mechanism of action of glycyrrhetic acid in inhibition of Epstein-Barr virus replication in vitro. *Antiviral Res* 2003;59(1):41-47. [View abstract](#).

59731

Caradonna, P., Gentiloni, N., Servidei, S., Perrone, G. A., Greco, A. V., and Russo, M. A. Acute myopathy associated with chronic licorice ingestion: reversible loss of myoadenylate deaminase activity. *Ultrastruct Pathol* 1992;16(5):529-535. [View abstract](#).

59732

Saeedi, M., Morteza-Semnani, K., and Ghoreishi, M. R. The treatment of atopic dermatitis with licorice gel. *J Dermatolog Treat* 2003;14(3):153-157. [View abstract](#).

59735

Roussak NJ. Fatal hypokalaemic alkalosis with tetany during liquorice and P.A.S. therapy. *Brit Med J* 1952;1:360-361. [View abstract](#).

59737

Eisenburg, J. [Treatment of chronic hepatitis B. Part 2: Effect of glycyrrhetic acid on the course of illness]. *Fortschr.Med* 7-30-1992;110(21):395-398. [View abstract](#).

59739

Armanini, D., Mattarello, M. J., Fiore, C., Bonanni, G., Scaroni, C., Sartorato, P., and Palermo, M. Licorice reduces serum testosterone in healthy women. *Steroids* 2004;69(11-12):763-766. [View abstract](#).

59740

Shintani, S., Murase, H., Tsukagoshi, H., and Shiigai, T. Glycyrrhizin (licorice)-induced hypokalemic myopathy. Report of 2 cases and review of the literature. *Eur Neurol* 1992;32(1):44-51. [View abstract](#).

59741

Armanini, D., Nacamulli, D., Francini-Pesenti, F., Battagin, G., Ragazzi, E., and Fiore, C. Glycyrrhetic acid, the active principle of licorice, can reduce the thickness of subcutaneous thigh fat through topical application. *Steroids* 2005;70(8):538-542. [View abstract](#).

59744

Ai, M., Yamaguchi, T., Odaka, T., Mitsuhashi, K., Shishido, T., Yan, J., Seza, A., and Saisho, H. Objective assessment of the antispasmodic effect of shakuyaku-kanzo-to (TJ-68), a Chinese herbal medicine, on the colonic wall by direct spraying during colonoscopy. *World J Gastroenterol* 2-7-2006;12(5):760-764. [View abstract](#).

59750

Visavadiya, N. P. and Narasimhacharya, A. V. Hypocholesterolaemic and antioxidant effects of Glycyrrhiza glabra (Linn) in rats. *Mol Nutr Food Res* 2006;50(11):1080-1086. [View abstract](#).

59751

Armanini, D., Castello, R., Scaroni, C., Bonanni, G., Faccini, G., Pellati, D., Bertoldo, A., Fiore, C., and Moghetti, P. Treatment of polycystic ovary syndrome with spironolactone plus licorice. *Eur J Obstet Gynecol.Reprod Biol* 2007;131(1):61-67. [View abstract](#).

59752

Mumoli, N. and Cei, M. Licorice-induced hypokalemia. *Int J Cardiol* 2008;124(3):e42-e44. [View abstract](#).

59754

Hattori, M., Sakamoto, T., Kobashi, K., and Namba, T. Metabolism of glycyrrhizin by human intestinal flora. *Planta Med* 1983;48(5):38-42. [View abstract](#).

59755

Chin, Y. W., Jung, H. A., Liu, Y., Su, B. N., Castoro, J. A., Keller, W. J., Pereira, M. A., and Kinghorn, A. D. Anti-oxidant constituents of the roots and stolons of licorice (*Glycyrrhiza glabra*). *J Agric Food Chem* 6-13-2007;55(12):4691-4697. [View abstract](#).

59756

Chen, M. F., Shimada, F., Kato, H., Yano, S., and Kanaoka, M. Effect of oral administration of glycyrrhizin on the pharmacokinetics of prednisolone. *Endocrinol Jpn* 1991;38(2):167-174. [View abstract](#).

59757

Cooper, H., Bhattacharya, B., Verma, V., McCulloch, A. J., Smellie, W. S., and Heald, A. H. Liquorice and soy sauce, a life-saving concoction in a patient with Addison's disease. *Ann Clin Biochem* 2007;44(Pt 4):397-399. [View abstract.](#)

59758

Final report on the safety assessment of Glycyrrhetic Acid, Potassium Glycyrrheticinate, Disodium Succinoyl Glycyrrheticinate, Glyceryl Glycyrrheticinate, Glycyrrheticinyl Stearate, Stearyl Glycyrrheticinate, Glycyrrhizic Acid, Ammonium Glycyrrhizate, Dipotassium Glycyrrhizate, Disodium Glycyrrhizate, Trisodium Glycyrrhizate, Methyl Glycyrrhizate, and Potassium Glycyrrhizinate. *Int J Toxicol* 2007;26 Suppl 2:79-112. [View abstract.](#)

59759

Aoki, F., Nakagawa, K., Kitano, M., Ikematsu, H., Nakamura, K., Yokota, S., Tominaga, Y., Arai, N., and Mae, T. Clinical safety of licorice flavonoid oil (LFO) and pharmacokinetics of glabridin in healthy humans. *J Am Coll.Nutr* 2007;26(3):209-218. [View abstract.](#)

59761

Fiore, C., Eisenhut, M., Krausse, R., Ragazzi, E., Pellati, D., Armanini, D., and Bielenberg, J. Antiviral effects of Glycyrrhiza species. *Phytother Res* 2008;22(2):141-148. [View abstract.](#)

59762

Lee, C. H., Park, S. W., Kim, Y. S., Kang, S. S., Kim, J. A., Lee, S. H., and Lee, S. M. Protective mechanism of glycyrrhizin on acute liver injury induced by carbon tetrachloride in mice. *Biol Pharm Bull* 2007;30(10):1898-1904. [View abstract.](#)

59763

Lee, C. K., Park, K. K., Lim, S. S., Park, J. H., and Chung, W. Y. Effects of the licorice extract against tumor growth and cisplatin-induced toxicity in a mouse xenograft model of colon cancer. *Biol Pharm Bull* 2007;30(11):2191-2195. [View abstract.](#)

59766

Isaia, G. C., Pellissetto, C., Ravazzoli, M., and Tamone, C. Acute adrenal crisis and hypercalcemia in a patient assuming high liquorice doses. *Minerva Med* 2008;99(1):91-94. [View abstract.](#)

59767

Burgess, J. A., van der Ven, P. F., Martin, M., Sherman, J., and Haley, J. Review of over-the-counter treatments for aphthous ulceration and results from use of a dissolving oral patch containing glycyrrhiza complex herbal extract. *J Contemp.Dent Pract*. 2008;9(3):88-98. [View abstract.](#)

59769

Martin, M. D., Sherman, J., van der Ven, V., and Burgess, J. A controlled trial of a dissolving oral patch concerning glycyrrhiza (licorice) herbal extract for the treatment of aphthous ulcers. *Gen Dent* 2008;56(2):206-210. [View abstract.](#)

59770

Wu, T. H., Chiu, T. Y., Tsai, J. S., Chen, C. Y., Chen, L. C., and Yang, L. L. Effectiveness of Taiwanese traditional herbal diet for pain management in terminal cancer patients. *Asia Pac.J Clin Nutr* 2008;17(1):17-22. [View abstract.](#)

59771

Tancevski, I., Eller, P., Spiegel, M., Kirchmair, R., and Patsch, J. R. Images in cardiovascular medicine. Malicious licorice. *Circulation* 2008;117(13):e299. [View abstract.](#)

59775

Yuan, H. N., Wang, C. Y., Sze, C. W., Tong, Y., Tan, Q. R., Feng, X. J., Liu, R. M., Zhang, J. Z., Zhang, Y. B., and Zhang, Z. J. A randomized, crossover comparison of herbal medicine and bromocriptine against risperidone-induced hyperprolactinemia in patients with schizophrenia. *J Clin Psychopharmacol* 2008;28(3):264-370. [View abstract.](#)

59777

Jin, C. Y., Wang, D. L., and Fang, Z. D. [Effect of integrative Chinese and Western medicine in treating chronic urticaria and its impact on interleukin-10 and interleukin-8 in peripheral blood]. *Zhongguo Zhong.Xi.Yi Jie.He.Za Zhi* 2008;28(4):358-360. [View abstract.](#)

59779

Zheng, A. and Moritani, T. Effect of the combination of ginseng, oriental bezoar and glycyrrhiza on autonomic nervous activity and immune system under mental arithmetic stress. *J Nutr Sci Vitaminol.(Tokyo)* 2008;54(3):244-249. [View abstract.](#)

- 59781
- Moghadamnia, A. A., Motallebnejad, M., and Khanian, M. The efficacy of the bioadhesive patches containing licorice extract in the management of recurrent aphthous stomatitis. *Phytother Res* 2009;23(2):246-250. [View abstract](#).
- 59785
- Brasseur, A. and Ducobu, J. [Severe hypokalemia after holidays return]. *Rev Med Brux* 2008;29(5):490-493. [View abstract](#).
- 59786
- Johns, C. Glycyrrhizic acid toxicity caused by consumption of licorice candy cigars. *CJEM* 2009;11(1):94-96. [View abstract](#).
- 59787
- Bocker, D. and Breithardt, G. [Induction of arrhythmia by licorice abuse]. *Z Kardiol* 1991;80(6):389-391. [View abstract](#).
- 59788
- Bai, Y. S., Zhou, C. Y., and Wang, J. Q. [Clinical observation on auxiliary treatment of hormone dependence dermatitis by shufeng liangxue decoction]. *Zhongguo Zhong.Xi.Yi.Jie.He.Za Zhi* 2008;28(12):1121-1123. [View abstract](#).
- 59789
- Rosenblat, M. and Aviram, M. Paraoxonases role in the prevention of cardiovascular diseases. *Biofactors* 2009;35(1):98-104. [View abstract](#).
- 59791
- Tacconi, P., Paribello, A., Cannas, A., and Marrosu, M. G. Carpal tunnel syndrome triggered by excessive licorice consumption. *J Peripher.Nerv.Syst.* 2009;14(1):64-65. [View abstract](#).
- 59792
- Kinoshita, H., Okabayashi, M., Kaneko, M., Yasuda, M., Abe, K., Machida, A., Ohkubo, T., Kamata, T., and Yakushiji, F. Shakuyaku-kanzo-to induces pseudoaldosteronism characterized by hypokalemia, rhabdomyolysis, metabolic alkalosis with respiratory compensation, and increased urinary cortisol levels. *J Altern Complement Med* 2009;15(4):439-443. [View abstract](#).
- 59793
- Agarwal, A., Gupta, D., Yadav, G., Goyal, P., Singh, P. K., and Singh, U. An evaluation of the efficacy of licorice gargle for attenuating postoperative sore throat: a prospective, randomized, single-blind study. *Anesth Analg* 2009;109(1):77-81. [View abstract](#).
- 59795
- Crean, A. M., Abdel-Rahman, S. E., and Greenwood, J. P. A sweet tooth as the root cause of cardiac arrest. *Can J Cardiol* 2009;25(10):e357-e358. [View abstract](#).
- 59798
- Schleimer, R. P. Potential regulation of inflammation in the lung by local metabolism of hydrocortisone. *Am J Respir.Cell Mol.Biol.* 1991;4(2):166-173. [View abstract](#).
- 59804
- Yamaguchi, H., Kidachi, Y., Kamiie, K., Noshita, T., Umetsu, H., and Ryoyama, K. Glycyrrhetic acid induces anoikis-like death and cytoskeletal disruption in the central nervous system tumorigenic cells. *Biol.Pharm Bull.* 2010;33(2):321-324. [View abstract](#).
- 59805
- Yamamoto, T., Hatanaka, M., Matsuda, J., Kadoya, H., Takahashi, A., Namba, T., Takeji, M., and Yamauchi, A. [Clinical characteristics of five elderly patients with severe hypokalemia induced by glycyrrhizin derivatives]. *Nihon Jinzo Gakkai Shi* 2010;52(1):80-85. [View abstract](#).
- 59808
- Tu, J. H., He, Y. J., Chen, Y., Fan, L., Zhang, W., Tan, Z. R., Huang, Y. F., Guo, D., Hu, D. L., Wang, D., and Hong-Hao Zhou. Effect of glycyrrhizin on the activity of CYP3A enzyme in humans. *Eur J Clin Pharmacol* 2010;66(8):805-810. [View abstract](#).
- 59809
- Chen, W. G. and Ba, Z. M. Prof. ZHANG Yi's experience in treating severe arrhythmia. *J Tradit.Clin Med* 2010;30(1):47-50. [View abstract](#).
- 59811
- Caubet-Kamar, N., Tubery, M., Garrouste, C., Lauque, D., and Kamar, N. Harmful effect of saline infusion in a patient with glycyrrhizic acid poisoning. *CJEM* 2010;12(3):224-225. [View abstract](#).
- 59812

Goultschin, J., Palmon, S., Shapira, L., Brayer, L., and Gedalia, I. Effect of glycyrrhizin-containing toothpaste on dental plaque reduction and gingival health in humans. A pilot study. *J Clin Periodontol* 1991;18(3):210-212. [View abstract](#).

59813

Hsu, Y. L., Wu, L. Y., Hou, M. F., Tsai, E. M., Lee, J. N., Liang, H. L., Jong, Y. J., Hung, C. H., and Kuo, P. L. Glabridin, an isoflavan from licorice root, inhibits migration, invasion and angiogenesis of MDA-MB-231 human breast adenocarcinoma cells by inhibiting focal adhesion kinase/Rho signaling pathway. *Mol.Nutr Food Res* 2011;55(2):318-327. [View abstract](#).

59815

Badr, A. E., Omar, N., and Badria, F. A. A laboratory evaluation of the antibacterial and cytotoxic effect of Liquorice when used as root canal medicament. *Int Endod.J* 2011;44(1):51-58. [View abstract](#).

59816

Yorgun, H., Aksoy, H., Sendur, M. A., Ates, A. H., Kaya, E. B., Aytemir, K., and Oto, A. Brugada syndrome with aborted sudden cardiac death related to liquorice-induced hypokalemia. *Med Princ Pract* 2010;19(6):485-489. [View abstract](#).

59817

Mohire, N. C. and Yadav, A. V. Chitosan-based polyherbal toothpaste: as novel oral hygiene product. *Indian J Dent Res* 2010;21(3):380-384. [View abstract](#).

59818

Scali, M., Pratesi, C., Zennaro, M. C., Zampollo, V., and Armanini, D. Pseudohyperaldosteronism from liquorice-containing laxatives. *J Endocrinol Invest* 1990;13(10):847-848. [View abstract](#).

59820

Chatterjee, N., Domoto-Reilly, K., Fecci, P. E., Schwamm, L. H., and Singhal, A. B. Licorice-associated reversible cerebral vasoconstriction with PRES. *Neurology* 2010;75(21):1939-1941. [View abstract](#).

59821

Peters, M. C., Tallman, J. A., Braun, T. M., and Jacobson, J. J. Clinical reduction of *S. mutans* in pre-school children using a novel liquorice root extract lollipop: a pilot study. *Eur.Arch.Paediatr.Dent* 2010;11(6):274-278. [View abstract](#).

59822

Imtiaz, K. E. Sweet root, bitter pill: liquorice-induced hyperaldosteronism. *QJM* 2011;104(12):1093-1095. [View abstract](#).

59823

Cassano, N., Mantegazza, R., Battaglini, S., Apruzzi, D., Loconsole, F., and Vena, G. A. Adjuvant role of a new emollient cream in patients with palmar and/or plantar psoriasis: a pilot randomized open-label study. *G Ital Dermatol Venereol* 2010;145(6):789-792. [View abstract](#).

59824

Costa, A., Moises, T. A., Cordero, T., Alves, C. R., and Marmirori, J. Association of emblica, licorice and belides as an alternative to hydroquinone in the clinical treatment of melasma. *An Bras Dermatol* 2010;85(5):613-620. [View abstract](#).

59826

van Beers, E. J., Stam, J., and van den Bergh, W. M. Licorice consumption as a cause of posterior reversible encephalopathy syndrome: a case report. *Crit Care* 2011;15(1):R64. [View abstract](#).

59828

Lorenzin, F., Degen, C., Milani, A., Siciliano, M., and Rossi, L. [Pseudo-hyperaldosteronism caused by liquorice. Pathogenetic considerations and presentation of a clinical case]. *Clin Ter* 1990;132(1):55-58. [View abstract](#).

59832

MacKenzie, M. A., Hoefnagels, W. H., Jansen, R. W., Benraad, T. J., and Kloppenborg, P. W. The influence of glycyrrhetic acid on plasma cortisol and cortisone in healthy young volunteers. *J Clin Endocrinol Metab* 1990;70(6):1637-1643. [View abstract](#).

59834

Messier, C., Epifano, F., Genovese, S., and Grenier, D. Licorice and its potential beneficial effects in common oro-dental diseases. *Oral Dis* 2012;18(1):32-39. [View abstract](#).

59835

Sheth, V. M. and Pandya, A. G. Melasma: a comprehensive update: part II. *J Am Acad Dermatol* 2011;65(4):699-714. [View abstract](#).

59841

Hajiaghamohammadi, A. A., Ziae, A., and Samimi, R. The efficacy of licorice root extract in decreasing transaminase activities in non-alcoholic fatty liver disease: a randomized controlled clinical trial. *Phytother Res* 2012;26(9):1381-1384. [View abstract](#).

59843

Lee, I. T., Lee, W. J., Tsai, C. M., Su, I. J., Yen, H. T., and Sheu, W. H. Combined extractives of red yeast rice, bitter gourd, chlorella, soy protein, and licorice improve total cholesterol, low-density lipoprotein cholesterol, and triglyceride in subjects with metabolic syndrome. *Nutr Res* 2012;32(2):85-92. [View abstract](#).

59844

Nabeshima, S., Kashiwagi, K., Ajisaka, K., Masui, S., Takeoka, H., Ikematsu, H., and Kashiwagi, S. A randomized, controlled trial comparing traditional herbal medicine and neuraminidase inhibitors in the treatment of seasonal influenza. *J Infect Chemother*. 2012;18(4):534-543. [View abstract](#).

59849

Celik, M. M., Karakus, A., Zeren, C., Demir, M., Bayarogullari, H., Duru, M., and Al, M. Licorice induced hypokalemia, edema, and thrombocytopenia. *Hum Exp Toxicol* 2012;31(12):1295-1298. [View abstract](#).

59850

Ruiz-Granados, E. S., Shouls, G., Sainsbury, C., and Antonios, T. A salty cause of severe hypertension. *BMJ Case Rep* 2012;2012. [View abstract](#).

59851

Korri, H., Awada, A., Baajour, W., Beaini, M., and Nasreddine, W. [Rapidly progressing quadripareisis secondary to licorice (souss) intoxication]. *J Med Liban* 2012;60(2):117-119. [View abstract](#).

59855

Steinberg, D., Sgan-Cohen, H. D., Stabholz, A., Pizanty, S., Segal, R., and Sela, M. N. The anticariogenic activity of glycyrrhizin: preliminary clinical trials. *Isr J Dent Sci* 1989;2(3):153-157. [View abstract](#).

59856

Hattori, T., Ikematsu, S., Koito, A., Matsushita, S., Maeda, Y., Hada, M., Fujimaki, M., and Takatsuki, K. Preliminary evidence for inhibitory effect of glycyrrhizin on HIV replication in patients with AIDS. *Antiviral Res* 1989;11(5-6):255-261. [View abstract](#).

59857

Das SK, Das V, Gulati AK, and et al. Deglycyrrhizinated liquorice in aphthous ulcers. *J Assoc Physicians India* 1989;37(10):647. [View abstract](#).

59860

Baba, M. and Shigeta, S. Antiviral activity of glycyrrhizin against varicella-zoster virus in vitro. *Antiviral Res* 1987;7(2):99-107. [View abstract](#).

59861

Nussbaumer, U., Landolt, M., Rothlisberger, G., Akovbiantz, A., Keller, H., Weber, E., Blum, A. L., and Peter, P. [Postoperative stress hemorrhage: ineffective prevention with pepsin inhibitor and deglycyrrhizinated licorice extract. Prospective study]. *Schweiz Med Wochenschr* 2-26-1977;107(8):276-279. [View abstract](#).

59862

Ito, M., Sato, A., Hirabayashi, K., Tanabe, F., Shigeta, S., Baba, M., De Clercq, E., Nakashima, H., and Yamamoto, N. Mechanism of inhibitory effect of glycyrrhizin on replication of human immunodeficiency virus (HIV). *Antiviral Res* 12-11-1988;10(6):289-298. [View abstract](#).

59863

Ito, M., Nakashima, H., Baba, M., Pauwels, R., De Clercq, E., Shigeta, S., and Yamamoto, N. Inhibitory effect of glycyrrhizin on the in vitro infectivity and cytopathic activity of the human immunodeficiency virus [HIV (HTLV- III/LAV)]. *Antiviral Res* 1987;7(3):127-137. [View abstract](#).

59864

Bardhan, K. D., Cumberland, D. C., Dixon, R. A., and Holdsworth, C. D. Clinical trial of deglycyrrhizinated liquorice in gastric ulcer. *Gut* 1978;19(9):779-782. [View abstract](#).

59865

Balakrishnan, V., Pillai, M. V., Raveendran, P. M., and Nair, C. S. Deglycyrrhizinated liquorice in the treatment of chronic duodenal ulcer. *J Assoc Physicians India* 1978;26(9):811-814. [View abstract](#).

59867

Beretta-Piccoli, C., Salvade, G., Crivelli, P. L., and Weidmann, P. Body-sodium and blood volume in a patient with licorice-induced hypertension. *J Hypertens* 1985;3(1):19-23. [View abstract](#).

59870

Cotterill, J. A. and Cunliffe, W. J. Self-medication with liquorice in a patient with Addison's disease. *Lancet* 2-10-1973;1(7798):294-295. [View abstract](#).

59871

Wilson, J. A. A comparison of carbenoxolone sodium and deglycyrrhizinated liquorice in the treatment of gastric ulcer in the ambulant patient. *Br J Clin Pract* 1972;26(12):563-566. [View abstract](#).

59873

Engqvist, A., von Feilitzen, F., Pyk, E., and Reichard, H. Double-blind trial of deglycyrrhizinated liquorice in gastric ulcer. *Gut* 1973;14(9):711-715. [View abstract](#).

59874

Anonymous. Treatment of duodenal ulcer with glycyrrhizinic-acid-reduced liquorice. A multicentre trial. *Br Med J* 1971;3(773):501-503. [View abstract](#).

59875

Rees, W. D., Rhodes, J., Wright, J. E., Stamford, L. F., and Bennett, A. Effect of deglycyrrhizinated liquorice on gastric mucosal damage by aspirin. *Scand J Gastroenterol*. 1979;14(5):605-607. [View abstract](#).

59877

Koster, M. and David, G. K. Reversible severe hypertension due to licorice ingestion. *N Engl J Med* 1968;278(25):1381-1383. [View abstract](#).

59882

Corse, F. M., Galgani, S., Gasparini, C., Giacanelli, M., and Piazza, G. Acute hypokalemic myopathy due to chronic licorice ingestion: report of a case. *Ital J Neurol Sci* 1983;4(4):493-497. [View abstract](#).

59885

Gibertoni, M., Bonito, V., Colombo, A., Falasca, A., and Nichelli, P. [Licorice-induced myopathy. Report of a new case]. *Riv Patol Nerv Ment* 1983;104(4):179-183. [View abstract](#).

59887

Mitscher, L. A., Park, Y. H., Clark, D., and Beal, J. L. Antimicrobial agents from higher plants. Antimicrobial isoflavanoids and related substances from Glycyrrhiza glabra L. var. typica. *J Nat Prod* 1980;43(2):259-269. [View abstract](#).

59888

Cumming, A. M., Boddy, K., Brown, J. J., Fraser, R., Lever, A. F., Padfield, P. L., and Robertson, J. I. Severe hypokalaemia with paralysis induced by small doses of liquorice. *Postgrad Med J* 1980;56(657):526-529. [View abstract](#).

59889

Berlanga Jimenez A., Jimenez Murillo L., Montero Perez F. J., Munoz Avila J. A., Torres Murillo J., and Calderon de la Barca Gazquez J. M. [Acute rhabdomyolysis and tetraparesis secondary to hypokalemia due to ingested licorice]. *An Med Interna* 1995;12(1):33-35. [View abstract](#).

59892

Bernardi, M., D'Intino, P. E., Trevisani, F., Cantelli-Forti, G., Raggi, M. A., Turchetto, E., and Gasbarrini, G. Effects of prolonged ingestion of graded doses of licorice by healthy volunteers. *Life Sci* 1994;55(11):863-872. [View abstract](#).

59895

Luchon, L., Meyrier, A., and Paillard, F. [Hypokalemia without arterial hypertension by licorice poisoning]. *Nephrologie* 1993;14(4):177-181. [View abstract](#).

59897

Murakami, T. and Uchikawa, T. Effect of glycyrrhizine on hyperkalemia due to hyporeninemic hypoaldosteronism in diabetes mellitus. *Life Sci* 1993;53(5):PL63-8. [View abstract](#).

- 59900
- van der Zwan A. Hypertension encephalopathy after liquorice ingestion. *Clin Neurol Neurosurg* 1993;95(1):35-37. [View abstract](#).
- 59901
- Werner, S., Brismar, K., and Olsson, S. Hyperprolactinaemia and liquorice. *Lancet* 2-10-1979;1(8111):319. [View abstract](#).
- 59903
- Da Nagao, Y., Sata, M., Suzuki, H., Tanikawa, K., Itoh, K., and Kameyama, T. Effectiveness of glycyrrhizin for oral lichen planus in patients with chronic HCV infection. *J Gastroenterol* 1996;31(5):691-695. [View abstract](#).
- 59904
- Kroes, B. H., Beukelman, C. J., van den Berg, A. J., Wolbink, G. J., van Dijk, H., and Labadie, R. P. Inhibition of human complement by beta-glycyrhetic acid. *Immunology* 1997;90(1):115-120. [View abstract](#).
- 59905
- Arase, Y., Ikeda, K., Murashima, N., Chayama, K., Tsubota, A., Koida, I., Suzuki, Y., Saitoh, S., Kobayashi, M., and Kumada, H. The long term efficacy of glycyrrhizin in chronic hepatitis C patients. *Cancer* 1997;79(8):1494-1500. [View abstract](#).
- 59906
- Bannister, B., Ginsburg, R., and Shneerson, J. Cardiac arrest due to liquoriceinduced hypokalaemia. *Br Med J* 9-17-1977;2(6089):738-739. [View abstract](#).
- 59907
- Yamada, K., Kanba, S., Yagi, G., and Asai, M. Effectiveness of herbal medicine (shakuyaku-kanzo-to) for neuroleptic-induced hyperprolactinemia. *J Clin Psychopharmacol* 1997;17(3):234-235. [View abstract](#).
- 59908
- Yamashiki, M., Nishimura, A., Suzuki, H., Sakaguchi, S., and Kosaka, Y. Effects of the Japanese herbal medicine "Sho-saiko-to" (TJ-9) on in vitro interleukin-10 production by peripheral blood mononuclear cells of patients with chronic hepatitis C. *Hepatology* 1997;25(6):1390-1397. [View abstract](#).
- 59912
- Nishioka, K. and Seguchi, T. Contact allergy due to oil-soluble licorice extracts in cosmetic products. *Contact Dermatitis* 1999;40(1):56. [View abstract](#).
- 59914
- Kumada T, et al. Effect of Shakuyaku-kanzo-to (Tsumura TJ-68) on muscle cramps accompanying cirrhosis in a placebo-controlled double-blind parallel study. *Journal of Clinical Therapeutics Medicine*. 1999;15:499-523.
- 59915
- Suzuki H, Ohta Y, Takino T, and et al. Effects of glycyrrhizin on biochemical tests in patients with chronic hepatitis -- double blind trial. *Asian Medical Journal* 1984;26(7):423-438.
- 59916
- Mattarello MJ, Karbowiak I, Ermolao A, and et al. Licorice reduces body fat mass in obese men and women. 83rd Annual Meeting of the Endocrine Society, June 20-23 2001;abstract P1-573.
- 59919
- Thom E and Wollan T. A controlled clinical study of kanjang mixture in the treatment of uncomplicated upper respiratory tract infections. *Phytotherapy Research* 1997;11:207-210.
- 59920
- Ito A, Hayashi N, Katayama K, and et al. Effect of glycyrrhizin on viral replication and quasispecies in patients with type C chronic hepatitis. *Int Hepatol Comm* 1997;233-238.
- 90891
- Davis EA, Morris DJ. Medicinal uses of licorice through the millennia: the good and plenty of it. *Mol Cell Endocrinol.* 1991;78(1-2):1-6. [View abstract](#).
- 90892
- Kondo K1, Shiba M, Nakamura R, Morota T, Shoyama Y. Constituent properties of licorices derived from Glycyrrhiza uralensis, G. glabra, or G. inflata identified by genetic information. *Biol Pharm Bull.* 2007;30(7):1271-7. [View abstract](#).
- 90893

American Herbal Products Association's Botanical Safety Handbook, Second Edition. Ed. Gardner Z, McGuffin M. Boca Raton, FL: CRC Press, 2013.