

參 考 文 獻

1. 孫星衍、孫馮翼，神農本草經，五洲出版社，臺中，pp. 12-31，1985。
2. 那 琦、謝文全，重輯名醫別錄，中國醫藥學院中國藥學研究所，臺中，p.35，1977。
3. 岡西為人，重輯新修本草，國立中國醫藥研究所，臺北，pp.156-157，1982。
4. 宋 掌禹錫等奉敕撰，那 琦、謝文全、李一宏重輯，重輯嘉祐補注神農本草，中國醫藥學院中國藥學研究所，臺中，pp.67-68，1989。
5. 宋 蘇頌等奉敕撰，謝文全重輯，重輯圖經本草，中國醫藥學院中國藥學研究所，臺中，pp.157-160，1993。
6. 宋 唐慎微等，經史證類大觀本草，國立中國醫藥研究所，臺北，pp.143-144，1977。
7. 宋 唐慎微，重修政和經史證類備用本草，南天書局有限公司，臺北，pp.148-149，1976。
8. 明 劉文泰等奉敕撰，御製本草品彙精要，台灣苗栗寶樹銀同珍藏，臺中，pp.225-227，1997。
9. 明 劉文泰、清 王道純等，本草品彙精要，南天書局有限公司，臺北，pp.227-228，1983。
10. 明 李時珍，本草綱目，國立中國醫藥研究所，臺北，pp.400-403，1976。
11. 清 吳其濬，植物名實圖考，世界書局印行，臺北，pp.152-153，1974。
12. 清 吳其濬，植物名實圖考長編（上），世界書局，臺北，pp.317-321，1962。
13. 那 琦，本草學，南天書局有限公司，臺北，pp.416-419，1974。
14. 臧勵蘇，中國古今地名大辭典，商務印書館，臺北，p.514，1987。
15. 同 14，pp.1232-1233。
16. 同 14，p.44。
17. 同 14，p.1059。

18. 同 14 , p.396。
19. 同 14 , p.628。
20. 同 14 , p.568。
21. 同 14 , pp.514-515。
22. 同 14 , p.397。
23. 同 14 , p.463。
24. 張寶恒, 烏拉爾甘草的抗炎作用。中草藥 22 : 542 , 1991。
25. Borst JGG. Synergistic action of liquorice and cortisone in Addison's and Simmonds' s disease. Lancet 2:657, 1953.
26. Strong JA. Failure of glycyrrhetic acid to control adrenal insufficiency. Lancet 2:150, 1955.
27. 徐東銘, 甘草治療消化性潰瘍病的化學成分和藥理學研究。中醫藥研究參考 8 : 31 , 1974。
28. 張厥容, 日本對某些常用中藥的研究現況 1975 1977 。中醫中藥分冊 1 : 19 , 1978。
29. 朱自平、張明發、沈雅琴、王紅武, 生甘草和白鮮皮對消化系統的藥理實驗研究。中國中西醫結合脾胃雜誌 6 : 95-97 , 1998。
30. 李岩、王麗華、盛莉, 紫菀與甘草對豚鼠氣管作用研究。中醫藥信息 16 : 47 , 1999。
31. 謝世榮、黃彩雲、楊靜嫻、黃勝英, 甘草黃酮抗實驗性心律失常的作用。基礎醫學與臨床 18 : 72-74 , 1998。
32. 吳錫銘、呂堅、李冰如, 甘草酸差向異構體對大鼠肝損害的治療作用。中國藥理學報 13 : 370-374 , 1992。
33. 顧旭、林成、賈敏, 甘草對大鼠離體輸精管的影響。西北藥學雜誌 12 : 116-117 , 1997。
34. 王超、包玉雙、白大芳、魏曉東、白書閣, 甘草對老年大鼠 SOD、LPO、MAO-B 影響的實驗研究。中國老年學雜誌 18 : 371-372 , 1998。
35. 朱少華、王大進、張玲莉, 甘草查爾酮抗脂質過氧化及自由基的實驗

- 研究。同濟醫科大學學報 25 : 25-27 , 1996。
36. Budavari S. The Merck Index. Merck & Co. Inc, p.4374, 1996.
 37. Chapman, Hall. Dictionary of Natural Products.London, Glasgow, New York, Tokyo, Melbourne, Madras. p.2598, 1994.
 38. Budavari S. The Merck Index. Merck & Co. Inc. p. 3544, 1996.
 39. Chapman, Hall.: Dictionary of Natural Products.London, Glasgow, New York, Tokyo, Melbourne, Madras. pp.2596-2597, 1994.
 40. Latif SA, Conca TJ, Morris DJ. The effects of the licorice derivative, glycyrrhetic acid, on hepatic 3 alpha- and 3 beta-hydroxysteroid dehydrogenases and 5 alpha- and 5 beta-reductase pathways of metabolism of aldosterone in male rats. *Steroids*. 55:52-58, 1990.
 41. Ojima M, Satoh K, Gomibuchi T, Itoh N, Kin S, Fukuchi S, Miyachi Y. The inhibitory effects of glycyrrhizin and glycyrrhetic acid on the metabolism of cortisol and prednisolone--in vivo and in vitro studies. *Folia Endocrinologica Japonica*. 66:584-596, 1990.
 42. Itoh K, Hara T, Shiraishi T, Taniguchi K, Morimoto S, Onishi T. Effects of glycyrrhizin and glycyrrhetic acid on (Na⁺ + K⁺)-ATPase of renal basolateral membranes in vitro. *Biochemistry International*. 18:81-89, 1989.
 43. Marandici A, Monder C. Inhibition by glycyrrhetic acid of rat tissue 11 beta-hydroxysteroid dehydrogenase in vivo. *Steroids*. 58:153-156, 1993.
 44. Ruszymah BH, Nabishah BM, Aminuddin S, Sarjit S, Khalid BA. Effects of glycyrrhizic acid and steroid treatment on corticotropin releasing factor and beta-endorphin containing neurons of the hypothalamus of the rat. *Malaysian Journal of Pathology*. 21:51-58, 1999.
 45. Sakamoto K, Wakabayashi K Inhibitory effect of glycyrrhetic acid on testosterone production in rat gonads. *Endocrinologia Japonica*. 35:333-342, 1988.

46. 陳劍雄、曹永舒，甘草酸單鉍對內毒素誘發支氣管高反應性的作用 - β -cAMP 向下調節影響。中藥藥理與臨床 10：17-18，1994。
47. 王梅蘭，甘草酸三鉍鹽對兔胸主動脈條收縮反應的影響。海峽藥學 10：9-11，1998。
48. 賀師鵬、靖宇、岳保珍、王孝偉、何雲慶、潘競先、陳雅研，甘草次酸與大鼠肝膜血管緊張素 受體相結合。中國藥理學通報 14：519-521，1998。
49. Fukuta H, Koshita M, Yamamoto Y, Suzuki H. Inhibition of the endothelium-dependent relaxation by 18 beta-glycyrrhetic acid in the guinea-pig aorta. Japanese Journal of Physiology. 49:267-274 1999.
50. Gomez-Sanchez EP, Gomez-Sanchez CE. Central hypertensinogenic effects of glycyrrhizic acid and carbenoxolone. American Journal of Physiology. 263:E1125-1130, 1992.
51. 蔡宏偉、譚秀娟、王雲姣，甘草酸對缺血再灌注犬腦粒線體 ATPase 活性的影響。中國藥理學通報 12：549-551，1996。
52. 朱曉衛、孟富敏，甘草次酸鈉對乳鼠心肌細胞的影響。中國藥理學報 17：331-333，1996。
53. 朱曉衛，甘草次酸鈉對培養乳鼠心肌細胞損傷的保護作用。中國藥理學通報 12：74-76，1996。
54. 朱任之，甘草次酸鈉對兔實驗性心肌梗塞的影響。蘭州醫學院學報 22：1-2，1996。
55. 周秋麗、張志強、長澤哲郎，柴胡皂 和甘草甜素抑制素 Na^+ , K^+ -ATPase 活性的構效關係。藥學學報 31：496-501，1996。
56. 李新芳、吳勇傑、郭朝暉，18 -甘草次酸鈉對實驗性心律失常的影響。中國中藥雜誌 17：176-178，1992。
57. 吳錫銘、呂堅、茹仁萍，甘草酸 18H 差向構體的比較研究。中國藥學雜誌 28：215-218，1993。
58. 張其勝、王吉耀、胡美玉，甘草酸對肝纖維化 Ito 細胞 型前膠

- 原 mRNA 表達和膠原沉積的影響。中華肝臟病雜誌 7:164, 1999。
59. Shibayama Y. Prevention of hepatotoxic responses to chemicals by glycyrrhizin in rats. *Experimental & Molecular Pathology*. 51:48-55, 1989.
 60. 李冰如、吳錫銘、劉如星, 甘草中差向異構體對 D-氨基半乳糖致大鼠肝損傷治療作用的肝組織學和亞微結構研究。中西醫結合肝病雜誌 6:20-21, 1996。
 61. 王吉耀、郭津生、劉淑玲、Mark AZ, 甘草甜素對肝硬化動物模型肝臟內 NF- κ B 結合活性的抑制作用。中華肝臟病雜誌 7:42-43, 1999。
 62. Shim SB, Kim NJ, Kim DH. Beta-glucuronidase inhibitory activity and hepatoprotective effect of 18 beta-glycyrrhetic acid from the rhizomes of *Glycyrrhiza uralensis*. *Planta Medica*. 66:40-43, 2000.
 63. 李俊麗、嚴瑞琪、王輝雲, 甘草甜素等對黃麴霉毒素 B₁ 致大鼠肝癌作用的影響。癌症 12:104-107, 1993。
 64. Shiki Y, Shirai K, Saito Y, Yoshida S, Mori Y, Wakashin M. Effect of glycyrrhizin on lysis of hepatocyte membranes induced by anti-liver cell membrane antibody. *Journal of Gastroenterology & Hepatology*. 7:12-16, 1992.
 65. Okamoto T. The protective effect of glycyrrhizin on anti-Fas antibody-induced hepatitis in mice. *European Journal of Pharmacology*. 387:229-232, 2000.
 66. Ishiwata S, Nakashita K, Ozawa Y, Niizeki M, Nozaki S, Tomioka Y, Mizugaki M. Fas-mediated apoptosis is enhanced by glycyrrhizin without alteration of caspase-3-like activity. *Biological & Pharmaceutical Bulletin*. 22:1163-1166, 1999.
 67. Nagai T, Egashira T, Kudo Y, Yamanaka Y, Shimada T. Attenuation of dysfunction in the ischemia-reperfused liver by glycyrrhizin. *Japanese Journal of Pharmacology*. 58:209-218, 1992.
 68. Yoshikawa M, Matsui Y, Kawamoto H, Umemoto N, Oku K, Koizumi M,

- Yamao J, Kuriyama S, Nakano H, Hozumi N, Ishizaka S, Fukui H. Effects of glycyrrhizin on immune-mediated cytotoxicity. *Journal of Gastroenterology & Hepatology*. 12:243-248, 1997.
69. Takahara T, Watanabe A, Shiraki K. Effects of glycyrrhizin on hepatitis B surface antigen: a biochemical and morphological study. *Journal of Hepatology*. 21:601-609, 1994.
70. Crance JM, Leveque F, Biziagos E, van Cuyck-Gandre H, Jouan A, Deloince R. Studies on mechanism of action of glycyrrhizin against hepatitis A virus replication in vitro. *Antiviral Research*. 23:63-76, 1994.
71. Yoshikawa M, Toyohara M, Ueda S, Shiroy A, Takeuchi H, Nishiyama T, Yamada T, Fukui H, Ishizaka S. Glycyrrhizin inhibits TNF-induced, but not Fas-mediated, apoptosis in the human hepatoblastoma line HepG2. *Biological & Pharmaceutical Bulletin*. 22:951-955, 1999.
72. 王根生、韓哲武，甘草類黃酮對乙醇所致小鼠肝臟損傷的影響。中國藥理學通報 9：271-273，1993。
73. 趙敏崎，甘草甜素、甘草次酸與柴胡皂甘對防治大白鼠實驗性肝硬化的作用。藥學學報 18：325，1983。
74. 張寶恒，甘草藥理作用研究的進展。藥學學報 10：688，1963。
75. 張寶恒，影響過敏介質釋放的中草藥。藥學通報 5：224，1979。
76. Maekawa T, Kosuge S, Karino A, Okano T, Ito J, Munakata H, Ohtsuki K. Biochemical characterization of 60S acidic ribosomal P proteins from porcine liver and the inhibition of their immunocomplex formation with sera from systemic lupus erythematosus (SLE) patients by glycyrrhizin in vitro. *Biological & Pharmaceutical Bulletin*. 23:27-32, 2000.
77. 張羅修、徐維敏、潘德濟，甘草皂對大鼠腹腔細胞前列腺素 E2 和 cAMP 水平的影響及對某些免疫功能的調節作用。上海醫科大學學報 15：101-105，1988。
78. 段金虹、程錦軒、程哲人，甘草酸單鉍對體外培養人和大鼠淋巴細胞

- 前列腺素和 DNA 合成的影響。中國藥理通報 7 : 440-443 , 1991。
79. Zhang YH, Isobe K, Iwamoto T, Nakashima I. Bidirectional control by glycyrrhizin of the growth response of lymphocytes stimulated through a receptor-bypassed pathway. *Immunology Letters*. 32:147-152, 1992.
 80. Zhang YH, Kato M, Isobe K, Hamaguchi M, Yokochi T, Nakashima I. Dissociated control by glycyrrhizin of proliferation and IL-2 production of murine thymocytes. *Cellular Immunology*. 162:97-104 , 1995.
 81. Kimura M, Watanabe H, Abo T. Selective activation of extrathymic T cells in the liver by glycyrrhizin. *Biotherapy*. 5:167-176, 1992.
 82. Horigome H, Horigome A, Homma M, Hirano T, Oka K. Glycyrrhetic acid-induced apoptosis in thymocytes: impact of 11beta-hydroxysteroid dehydrogenase inhibition. *American Journal of Physiology*. 277:E624-630, 1999.
 83. Oh C, Kim Y, Eun J, Yokoyama T, Kato M., Nakashima I. Induction of T lymphocyte apoptosis by treatment with glycyrrhizin. *American Journal of Chinese Medicine*. 27:217-226, 1999.
 84. Kroes BH, Beukelman CJ, van den Berg AJ, Wolbink GJ, van Dijk H, Labadie RP. Inhibition of human complement by beta-glycyrrhetic acid. *Immunology*. 90:115-120, 1997.
 85. 唐法娣、王硯、謝強敏、卞如濂 , 甘草酸銨對胸膜炎和支氣管肺泡灌洗液中炎症細胞的影響。中藥藥理與臨床 15 : 17-18 , 1999。
 86. Okimasu E, Moromizato Y, Watanabe S, Sasaki J, Shiraishi N, Morimoto YM, Miyahara M, Utsumi K. Inhibition of phospholipase A2 and platelet aggregation by glycyrrhizin, an antiinflammation drug. *Acta Medica Okayama*. 37:385-391, 1983.
 87. Ichikawa Y, Mizoguchi Y, Kioka K, Kobayashi K, Tomekawa K, Morosawa S, Yamamoto S. Effect of glycyrrhizin on the production of platelet-activating factor from rat peritoneal exudate cells. *Japanese*

- Journal of Allergology. 38:365-369, 1989.
88. Akamatsu H, Komura J, Asada Y, Niwa Y. Mechanism of anti-inflammatory action of glycyrrhizin: effect on neutrophil functions including reactive oxygen species generation. *Planta Medica*. 57:119-121, 1991.
 89. 包金鳳、吳勇傑、楊永健，甘草次酸鈉對大鼠化學性腹膜炎的影響。中國藥理學報 18：277-280，1997。
 90. Ohuchi K, Kamada Y, Levine L, Tsurufuji S. Glycyrrhizin inhibits prostaglandin E2 production by activated peritoneal macrophages from rats. *Prostaglandins & Medicine*. 7:457-463, 1981.
 91. Chen XG, Han R. Effect of glycyrrhetic acid on DNA damage and unscheduled DNA synthesis induced by benzo(a)pyrene. *Acta Pharmaceutica Sinica*. 29:725-729, 1994.
 92. 朱任之，甘草次酸鈉口服給藥的抗炎及免疫調節作用。中國藥理學通報 12：542-544，1996。
 93. Imanishi N, Kawai H, Hayashi Y, Yatsunami K, Ichikawa A. Effects of glycyrrhizin and glycyrrhetic acid on dexamethasone-induced changes in histamine synthesis of mouse mastocytoma P-815 cells and in histamine release from rat peritoneal mast cells. *Biochemical Pharmacology*. 38:2521-2526, 1989.
 94. 葛淑芬、蘭行簡、鹽田覺，甘草甜素對小鼠頷下腺纖維肉瘤細胞的增殖抑制作用。中華口腔醫學雜誌 33：341-343，1998。
 95. Logeman W. Antileukaemic activity of glycyrrhetic acid. *Nature* 187:607, 1989.
 96. Kitagawa K, Nishino H, Iwashima A. Inhibition of the specific binding of 12-O-tetradecanoylphorbol-13-acetate to mouse epidermal membrane fractions by glycyrrhetic acid. *Oncology*. 43:127-130, 1986.
 97. Okabe H, Shibata S, Fujiki H, Sugimura T. Glycyrrhetic acid inhibits

- tumor-promoting activity of teleocidin and 12-O-tetradecanoylphorbol-13-acetate in two-stage mouse skin carcinogenesis. *Japanese Journal of Cancer Research*. 77:33-38, 1986.
98. Wang ZY, Agarwal R, Zhou ZC, Bickers DR, Mukhtar H. Inhibition of mutagenicity in *Salmonella typhimurium* and skin tumor initiating and tumor promoting activities in SENCAR mice by glycyrrhetic acid: comparison of 18 alpha- and 18 beta-stereoisomers. *Carcinogenesis*. 12:187-192, 1991.
 99. Chung JG, Chang HL, Lin WC, Wang HH, Yeh CC, Hung CF, Li YC. Inhibition of N-acetyltransferase activity and DNA-2-aminofluorene adducts by glycyrrhizic acid in human colon tumour cells. *Food & Chemical Toxicology*. 38:163-172, 2000.
 100. Chen X, Han R. Effect of glycyrrhetic acid on DNA damage and unscheduled DNA synthesis induced by benzo(a)pyrene. *Chinese Medical Sciences Journal*. 10:16-19,1995.
 101. Zakirov UB, Abdullaev AK. The hypolipidemic and antiatherosclerotic properties of the ammonium salt of glycyrrhetic acid and of 18-dehydroglycyrrhetic acid. *Ekspierimentalnaia i Klinicheskaia Farmakologiiia*. 59:53-5, 1996.
 102. Hattori T, Ikematsu S, Koito A, Matsushita S, Maeda Y, Hada M, Fujimaki M, Takatsuki K. Preliminary evidence for inhibitory effect of glycyrrhizin on HIV replication in patients with AIDS. *Antiviral Research*. 11:255-261, 1989.
 103. Ito M, Nakashima H, Baba M, Pauwels R, De Clercq E, Shigeta S, Yamamoto N. Inhibitory effect of glycyrrhizin on the in vitro infectivity and cytopathic activity of the human immunodeficiency virus [HIV(HTLV-III/LAV)]. *Antiviral Research*. 7:127-137, 1987.
 104. Hirabayashi K, Iwata S, Matsumoto H, Mori T, Shibata S, Baba M, Ito M,

- Shigeta S, Nakashima H, Yamamoto N. Antiviral activities of glycyrrhizin and its modified compounds against human immunodeficiency virus type 1 (HIV-1) and herpes simplex virus type 1 (HSV-1) in vitro. *Chemical & Pharmaceutical Bulletin*. 39:112-115, 1991.
105. Ohtsuki K, Iahida N. Inhibitory effect of glycyrrhizin on polypeptide phosphorylation by polypeptide-dependent protein kinase (kinase P) in vitro. *Biochemical & Biophysical Research Communications*. 157:597-604, 1988.
106. Ito M, Sato A, Hirabayashi K, Tanabe F, Shigeta S, Baba M, De Clercq E, Nakashima H, Yamamoto N. Mechanism of inhibitory effect of glycyrrhizin on replication of human immunodeficiency virus (HIV). *Antiviral Research*. 10:289-298, 1988.
107. Pliasunova OA, Egoricheva IN, Fediuk NV, Pokrovskii AG, Baltina LA, Murinov IuI, Tolstikov GA. The anti-HIV activity of beta-glycyrrhizic acid. *Voprosy Virusologii*. 37:235-238, 1992.
108. Utsunomiya T, Kobayashi M, Pollard RB, Suzuki F. Glycyrrhizin, an active component of licorice roots, reduces morbidity and mortality of mice infected with lethal doses of influenza virus. *Antimicrobial Agents & Chemotherapy*. 41:551-556, 1997.
109. Watanbe H, Miyaji C, Makino M, Abo T. Therapeutic effects of glycyrrhizin in mice infected with LP-BM5 murine retrovirus and mechanisms involved in the prevention of disease progression. *Biotherapy*. 9:209-220, 1996.
110. Utsunomiya T, Kobayashi M, Ito M, Pollard RB, Suzuki F. Glycyrrhizin improves the resistance of MAIDS mice to opportunistic infection of *Candida albicans* through the modulation of MAIDS-associated type 2 T cell responses. *Clinical Immunology*. 95:145-155, 2000.
111. Hayashi Y, Hirai S, Negishi M, Okumura T, Ichikawa A. Desensitization by

- glycyrrhetic acid of other stimulatory substance-induced increases in intracellular calcium in a variety of cell types. *Biochemical Pharmacology*. 41:1725-1730, 1991.
112. Ainsah O, Nabishah BM, Osman CB, Khalid BA. Short- and long-term effects of glycyrrhizic acid in repetitive stress. *Clinical & Experimental Pharmacology & Physiology*. 26:444-448, 1999.
113. Ainsah O, Nabishah BM, Osman CB, Khalid BA. Effects of naloxone, glycyrrhizic acid, dexamethasone and deoxycorticosterone in repetitive stress. *Clinical & Experimental Pharmacology & Physiology*. 26:433-437, 1999.
114. 江蘇新醫學院，中藥大辭典，上海科學技術出版社，上海，pp2481-2483，1995。
115. 徐叔云，現代實用臨床藥理學，華夏出版社，北京，pp.1195-1196，1996。
116. 苗明三，常用中藥炮製新釋及應用，世界圖書出版公司，西安，p.287，1998。
117. Hattori M. Sakamoto T. Kobashi K. Namba T. Metabolism of glycyrrhizin by human intestinal flora. *Planta Medica*. 48:38-42, 1983
118. 國家中醫藥管理局〈中華本草〉編委會：中華本草精選本，上海科學技術出版社，上海，pp866-884
119. 盧長慶，甘草蜜炙前後甘草酸含量變化的研究。中成藥研究 5：36，1980。
120. 王靜竹、陳定一、趙現紅，甘草及其炮製品中甘草酸含量的測定。中國中藥雜誌，20：535，1995。
121. Akao T. Localization of enzymes involved in metabolism of glycyrrhizin in contents of rat gastrointestinal tract. *Biological & Pharmaceutical Bulletin*. 20: 122-126, 1997.
122. Imai T, Sakai M, Ohtake H, Otagiri M. *In vitro* and *in vivo* evaluation of the enhancing activity of glycyrrhizin on the intestinal absorption of drugs.

- Pharmacological Research. 16: 80-86, 1999.
123. Yamamura Y, Santa T, Kotaki H, Uchino K, Sawada Y, Iga T. Administration-route dependency of absorption of glycyrrhizin in rats: intraperitoneal administration dramatically enhanced bioavailability. *Biological & Pharmaceutical Bulletin*. 18:337-341, 1995.
 124. Wang Z, Okamoto M, Kurosaki Y, Nakayama T, Kimura T. Pharmacokinetics of glycyrrhizin in rats with D-galactosamine-induced hepatic disease. *Biological & Pharmaceutical Bulletin*. 19:901-904, 1996.
 125. Wang Z, Kurosaki Y, Nakayama T, Kimura T. Mechanism of gastrointestinal absorption of glycyrrhizin in rats. *Biological & Pharmaceutical Bulletin*. 17:1399-1403, 1994.
 126. Kumagai A, Tamura Y, Chang YI. Biochemistry of glycyrrhizae radix. The mode of actions of glycyrrhizin and glycyrrhetic acid. *Gendai Toyo Igaku*, 2:38-45, 1981.
 127. Ader P, Wessmann A, Wolfram S. Bioavailability and metabolism of the flavonol quercetin in the pig. *Free Radical Biology & Medicine*. 28:1056-1067, 2000.
 128. 張厚寶、高萬山，甘草炮製品的質量分析。中藥通報，12：535，1987。
 129. Ozaki Y, Noguchi M, Kamakura H, Harada M. Studies on concentration of glycyrrhizin in plasma and its absorption after oral administration of licorice extract and glycyrrhizin. *Yakugaku Zasshi - Journal of the Pharmaceutical Society of Japan*. 110:77-81, 1990
 130. Cantelli-Forti G, Maffei F, Hrelia P, Bugamelli F, Bernardi M, D'Intino P, Maranesi M, Raggi MA. Interaction of licorice on glycyrrhizin pharmacokinetics. *Environmental Health Perspectives*. 102 Suppl 9:65-68, 1994
 131. Raggi MA, Maffei F, Bugamelli F, Cantelli Forti G. Bioavailability of glycyrrhizin and licorice extract in rat and human plasma as detected by a

- HPLC method. *Pharmazie*. 49:269-72, 1994
132. Buhler H, Perschel FH, Hierholzer K. Inhibition of rat renal 11 beta-hydroxysteroid dehydrogenase by steroidal compounds and triterpenoids; structure/function relationship. *Biochim. Biophys. Acta*. 1075:206-212, 1991.
 133. 徐國鈞, 中國藥材學, 中國醫藥科技出版社, 北京, pp. 1803-1806, 1996。
 134. Wen HM, Chern JC, Chen SH. Quality Survey of Commercial Honey Products, *J. Food and Drug Analysis*.3 : 295-306, 1995
 135. Jeuring HJ, Kupperts FJEM. High Performance Liquid Chromatography of Furfural and Hydroxymethylfurfural in Spritis and Honey. *J. Assoc. Off. Anal. Chem.* 63:1215-1218, 1980.
 136. Vinas P, Campillo N, Cordoba MH, Candela ME. Simultaneous Liquid Chromatographic Analysis of 5-Hydroxymethyl-2-Furaldehyde and Methyl Anthranilate in Honey. *Food Chem.* 44: 67-72, 1992.
 137. 鄭虎占, 中藥現代研究與應用, 學苑出版社, 北京, pp. 1256-1317, 1997。
 138. Akao T. Competition in the metabolism of glycyrrhizin with glycyrrhetic acid mono-glucuronide by mixed *Eubacterium* sp. GLH and *Ruminococcus* sp. PO1-3. *Biological & Pharmaceutical Bulletin*. 23:149-154, 2000.