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Guideline

Guideline for Traditional Chinese Medicine Diagnosis and Treatment of Primary Liver Cancer

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Abstract

Primary liver cancer is one of the most common malignant tumors in China, which seriously threatens people's lives and health. In recent years, with the advancement of basic and clinical research, the diagnosis and treatment methods for primary liver cancer have been continually enriched. Traditional Chinese medicine (TCM) has played an important role in the diagnosis and treatment of primary liver cancer, but there is no unified standard for differentiation and treatment, and efficacy evaluation. In order to further standardize the TCM diagnosis and treatment of primary liver cancer, according to the requirements of TCM standardization and related technical guidance documents, the drafting team compiled this guideline through literature research, expert interviews, questionnaire surveys, consensus meetings, etc., for reference by clinicians. This guideline is approved and issued by the China Association of Chinese Medicine, standard number: T/CACM 1575-2024.

Keywords: Primary liver cancer; Traditional Chinese medicine; TCM; Guidelines; Diagnosis; Treatment; Evidence-based medicine.

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Introduction

Primary liver cancer (PLC) currently ranks as the fourth most common malignancy and the second leading cause of cancer-related mortality in China, posing a severe threat to public health. According to statistics from the National Cancer Center, China recorded

410,000 new cases and 390,000 deaths of PLC in 2020. These figures represent the second and fifth leading causes of cancer death among Chinese males and females, respectively. The management of PLC necessitates multidisciplinary collaboration. Optimal long-term outcomes can be achieved through the sequential and standardized application of therapies, including liver resection, liver transplantation, ablation therapy, transarterial chemoembolization (TACE), radiotherapy, systemic antitumor therapy, and Traditional Chinese Medicine (TCM).

TCM possesses extensive clinical experience in treating PLC. Based on the characteristics of etiology and pathogenesis, distinct therapeutic methods are employed across various stages according to specific TCM pattern differentiation. TCM has demonstrated significant clinical efficacy in relieving symptoms, reducing adverse reactions, prolonging survival, and improving the quality of life (QOL) for patients with liver cancer. However, there remains a lack of unified standards for pattern differentiation and efficacy evaluation, as well as a deficiency of high-level evidence-based medical data.

To further standardize the TCM diagnosis and treatment of PLC, the drafting group developed these clinical practice guidelines. The guideline was developed using evidence-based medical methodologies, integrating systematic reviews and meta-analyses of the literature, expert experience, and recent advances in the prevention and treatment of PLC with TCM.

Definitions

PLC: A malignancy originating within the liver, encompassing three distinct pathological types: hepatocellular carcinoma (HCC), intrahepatic cholangiocarcinoma (ICC), and combined HCC-ICC.

Ganji (liver accumulation): A category of accumulation (ji) disease characterized by the obstruction of liver collaterals (ganluo, referring to the finer network of microvessels and functional pathways) due to various etiologies, leading to the loss of the liver's characteristic softness and the impairment of its free-flowing function (shuxie, often associated with neuroendocrine-immune regulation and metabolic homeostasis). Clinical manifestations primarily include right hypochondriac pain, hypochondriac masses, abdominal distension, anorexia, and symptoms associated with liver stasis.[1]

Zhengjia (abdominal mass): The presence of palpable, tangible masses within the abdominal cavity, typically formed by the entanglement of "pathogens with form", such as blood stasis (reflecting microcirculatory disturbances and pro-fibrotic signaling), parasite accumulation (chongji), food stagnation, dry stools (zaoshi), or phlegm coagulation (reflecting chronic inflammatory and metabolic waste states).[1]

Post-embolization syndrome (PES): A cluster of adverse reactions occurring in patients with PLC following TACE. Common clinical presentations include fever, nausea, vomiting, pain in the liver region, abdominal distension, and anorexia.[2]

TCM disease diagnosis

In TCM, PLC is classified under categories such as Ganji (liver accumulation), Zhengjia (abdominal masses), and Gancai (liver cancer).

TCM etiology and pathogenesis

The development of liver cancer is primarily attributed to constitutional deficiency, chronic debility, emotional depression, dietary irregularities, excessive alcohol consumption, or exposure to pathogenic toxins. These factors lead to a state of root deficiency and branch excess (zheng deficiency and pathogenic factors excess). Prolonged entanglement of Qi stagnation, blood stasis, phlegm-dampness, and heat-toxin eventually culminates in the formation of "accumulation" (ji). As stated in the Yizong Bidu (Guided Specialties of Medicine): "The formation of accumulation occurs when Zheng Qi is insufficient, allowing pathogenic factors to reside".

The etiology and pathogenesis of liver cancer are complex, with "deficiency" serving as the fundamental root—the disease arises from deficiency and subsequently leads to excess. Pathologically, it manifests as internal accumulation of turbid toxins, Qi stagnation, blood stasis, and obstruction of the collaterals. In the early stages, the deficiency of Qi, blood, Yin, and Yang may still struggle against the excesses of toxins, stasis, phlegm, and stagnation. In the advanced stages, the zang-fu organs (TCM functional organ systems, often corresponding to but not identical with anatomical organs), specifically the liver, spleen, and kidney, are all compromised, leading to the depletion of the sources of Qi and blood production. During this phase, virulent pathogenic toxins flourish, resulting in various complications such as masses, Zhengjia (abdominal masses and accumulations), jaundice, tympanites (guzhang, abdominal swelling), and hemorrhagic syndromes.

Consequently, clinical manifestations of liver cancer vary, presenting diverse TCM patterns. The overarching therapeutic principle is to strengthen the body's resistance and eliminate pathogenic factors (fu zheng qu xie, focusing on holistic regulation and multi-target intervention). Strengthening resistance involves restoring organ functions such as tonifying the spleen (improving metabolic function and nutritional status), supplementing Qi, nourishing Yin, supplementing blood, and warming Yang. Eliminating pathogens involves removing pathological products by promoting Qi movement, activating blood and resolving stasis (ameliorating microcirculation and inhibiting pro-fibrotic pathways), transforming dampness, detoxifying, clearing heat, and dissipating nodules (promoting the resolution of fibrotic lesions). Clinical practice requires balanced management of the relationship between strengthening resistance and eliminating pathogens.

TCM pattern diagnosis

Overview

With reference to the Guidelines for Diagnosis and Treatment of Primary Liver Cancer (2022 Edition) and the Expert Consensus on Integrative Chinese and Western Medicine Interventional Diagnosis and Treatment for Primary Liver Cancer,[3] a comprehensive analysis was conducted on clinical research literature regarding TCM and integrative medicine treatments for PLC published in domestic biomedical journals from 1984 to 2022. The TCM pattern diagnostic standards were statistically determined based on occurrence frequency and clinical case applications. Detailed contents are provided below.

Liver Qi stagnation pattern (Gan Qi Yu Jie Zheng)

Clinical manifestations: Distending pain in the hypochondrium with a wandering location, distension and fullness in the epigastrium and abdomen, chest oppression, frequent sighing, irritability, and susceptibility to anger.

Tongue and pulse: Pale-red tongue with a thin white coating; wiry pulse.

Qi stagnation and blood stasis pattern (Qi Zhi Xue Yu Zheng)

Clinical manifestations: Distending oppression and piercing pain in the chest and hypochondrium, fixed pain aggravated by pressure, or stabbing pain in the chest and hypochondrium that worsens at night. Presence of upper abdominal masses, liver palms, spider nevi, and varicose veins on the abdominal wall; in severe cases, squamous and dry skin (ji fu jia cuo, reflecting severe microcirculatory failure and malnutrition).

Tongue and pulse: Dark or dusky-red tongue with ecchymosis or petechiae; sublingual veins are prolonged, thickened, or tortuous. Thin white or thin yellow tongue coating; fine-wiry or fine-choppy and weak pulse.

Damp-heat and toxin accumulation pattern (Shi Re Du Yun Zheng)

Clinical manifestations: Burning and distending pain in the right hypochondrium, anorexia, epigastric oppression, constipation or sticky and impeded stool, fever, bitter taste in the mouth, dry mouth, vexation, irritability, and yellow urine (reflecting acute inflammatory and oxidative stress states).

Tongue and pulse: Red tongue with a yellow, greasy coating; rapid or slippery pulse.

Liver depression and spleen deficiency pattern (Gan Yu Pi Xu Zheng)

Clinical manifestations: Distension and fullness in the chest and abdomen, emaciation, fatigue, lassitude, shortness of breath, abdominal distension, and poor appetite (reflecting impaired digestion and metabolic dysfunction). Dry mouth without desire for fluids, loose stools with increased frequency, and scanty yellow urine. In severe cases, ascites, jaundice, and edema of the lower extremities may occur.

Tongue and pulse: Enlarged tongue body with a white coating; fine-wiry pulse.

Liver and kidney Yin deficiency pattern (Gan Shen Yin Xu Zheng)

Clinical manifestations: Malar flushing and dry mouth, tidal fever or feverish sensation in the palms and soles (five-center heat), restlessness, and insomnia. Anorexia, constipation, abdominal distension, and abdominal enlargement (ascites) with prominent abdominal veins. Emaciation of the four limbs with edema, shortness of breath, and tachypnea. In severe cases, coma and delirium, gingival bleeding (chi nu), epistaxis (bi nu), or hematochezia and hematuria.

Tongue and pulse: Red tongue with scanty coating; fine, rapid, and weak pulse.

Therapeutic goals of TCM

The therapeutic approach integrates disease-pattern combination and pattern differentiation and treatment (bian zheng lun zhi), adhering to the principles of strengthening body resistance and eliminating pathogens, as well as treating both the branch and the root. The primary objectives include: ameliorating clinical symptoms and improving tumor-related biomarkers, reducing tumor recurrence, enhancing the QOL for patients, and prolonging overall survival (OS).

Therapeutic regimens

Western medical treatment

Patients who meet the clinical diagnostic criteria for PLC as defined in the Guidelines for Diagnosis and Treatment of Primary Liver Cancer and who require treatment may select therapeutic options based on their specific condition.[3] These include surgical intervention, ablation therapy, TACE, radiotherapy, and systemic antitumor therapy [targeted therapy, immunotherapy, systemic chemotherapy, and other treatments (antiviral and hepatoprotective therapy, symptomatic supportive treatment)]. Specific protocols may refer to the Guidelines for Diagnosis and Treatment of Primary Liver Cancer (2022 Edition).[3]

TCM pattern differentiation and treatment

Overview

Based on the analysis of clinical research literature regarding TCM and integrative medicine treatments for PLC published in domestic biomedical journals from 1984 to 2022, and with reference to the Guidelines of Diagnosis and Therapy in Oncology with Traditional Chinese Medicine,[4] the Guidelines for the Diagnosis and Treatment of Primary Liver Cancer with Integrated Traditional Chinese and Western Medicine,[5] and the RECIST and mRECIST criteria for efficacy evaluation,[6,7] the following therapeutic courses are established:

- *Symptomatic treatment:* The course of treatment for symptomatic relief is approximately 7 to 14 days;
- *Other therapeutic goals:* For other treatment objectives, one therapeutic course generally lasts 4 to 8 weeks;
- *Follow-up:* Stage-based follow-ups are required.

Liver Qi stagnation pattern

Therapeutic principle: Soothing the liver, relieving depression, regulating Qi, and dissipating nodules. *Recommended formula:* Modified Chaihu Shugan San.[8–12]

Composition: Chenpi (Citri Reticulatae Pericarpium), Chaihu (Bupleuri Radix), Chuanxiong (Chuanxiong Rhizoma), Xiangfu (Cyperi Rhizoma), Zhi Ke (Aurantii Fructus), Shaoyao (Paeoniae Radix), Gancao (Glycyrrhizae Radix), etc.

Evidence level: Grade II, strong recommendation.

Clinical significance: Combining this formula with TACE improves the objective response rate (ORR) and QOL.[8–11] When combined with fentanyl patches, it significantly reduces the dosage of fentanyl required for cancer pain.[12]

Qi stagnation and blood stasis pattern

Therapeutic principle: Activating blood, resolving stasis, softening hardness, and dissipating nodules.

Recommended formula: Modified Xuefu Zhuyu Tang combined with Bijia Fen Wan.[13,14]

Composition: Taoren (Persicae Semen), Honghua (Carthami Flos), Danggui (Angelicae Sinensis Radix), Shengdihuang (Rehmanniae Radix), Niuxi (Achyrantis Bidentatae Radix), Chuanxiong (Chuanxiong Rhizoma), Jiege (Platycodonis Radix), Chishaoyao (Paeoniae Radix Rubra), Zhi Ke (Aurantii Fructus), Gancao (Glycyrrhizae Radix), Chaihu (Bupleuri Radix), Bijia (Trionycis Carapax), Tubiechong (Eupolyphaga), Fengchao (Vespae Nidus), Huangqin (Scutellariae Radix), Ganjiang (Zingiberis Rhizoma), Dahuang (Rhei Radix et Rhizoma), Guizhi (Cinnamomi Ramulus), Shigao (Gypsum Fibrosum), Houpo (Magnoliae Officinalis Cortex), Banxia (Pinelliae Rhizoma), Renshen (Ginseng

Radix et Rhizoma), Ejiao (Asini Corii Colla), etc.

Evidence level: Grade III, strong recommendation.

Clinical significance: This regimen effectively alleviates post-TACE pain in the liver region and enhances QOL.[13] When combined with XELOX chemotherapy, it significantly increases the ORR.[14]

Damp-heat and toxin accumulation pattern (Shi Re Du Yun Zheng)

Therapeutic principle: Clearing heat, promoting diuresis, detoxifying, and dissipating masses.

Recommended formula: Modified Yinchenhao Tang combined with Wuling San.[15–17]

Composition: Yinchenhao (Artemisiae Scopariae Herba), Dahuang (Rhei Radix et Rhizoma), Zhizi (Gardeniae Fructus), Zhuling (Polyporus), Fuling (Poria), Baizhu (Atractylodis Macrocephalae Rhizoma), Zexie (Alismatis Rhizoma), and Guizhi (Cinnamomi Ramulus).

Evidence level: Grade III, strong recommendation.

Clinical significance: Combining modified Yinchenhao Tang with conventional hepatoprotective and jaundice-reducing therapies for PLC-related jaundice increases the effective rate and significantly reduces total bilirubin levels.

Liver depression and spleen deficiency pattern (Gan Yu Pi Xu Zheng)

Therapeutic principle: Soothing the liver, strengthening the spleen, regulating Qi, and dissipating masses.

Recommended formula: Modified Xiaoyao San.[18–25]

Composition: Chaihu (Bupleuri Radix), Danggui (Angelicae Sinensis Radix), Baishao (Paeoniae Radix Alba), Dangshen (Codonopsis Radix), Baizhu (Atractylodis Macrocephalae Rhizoma), Fuling (Poria), and Gancao (Glycyrrhizae Radix).

Evidence level: Grade II, strong recommendation.

Clinical significance: Combining Xiaoyao San with TACE or ablation therapy improves the ORR and enhances QOL. Furthermore, this integration reduces the incidence of postoperative adverse reactions, such as nausea, vomiting, and pain in the liver region.

Liver and kidney Yin deficiency pattern (Gan Shen Yin Xu Zheng)

Therapeutic principle: Nourishing the liver and kidney, resolving stasis, and dissipating masses.

Recommended formula: Modified Yiguan Jian.[26–29]

Composition: Beishashen (Glehniae Radix), Maidong (Ophiopogonis Radix), Danggui (Angelicae Sinensis Radix), Shengdihuang (Rehmanniae Radix), Gouqizi (Lycii Fructus), and Chuanlianzi (Toosendan Fructus).

Evidence level: Grade III, strong recommendation.

Clinical significance: Combining this formula with radiotherapy improves the ORR. When integrated with TACE or ablation therapy, it enhances QOL, ameliorates liver injury, and reduces alpha-fetoprotein (AFP) levels. Furthermore, its combination with apatinib mesylate increases antitumor efficacy and prolongs OS.

Classic formulas (Jingdian Mingfang)

Xiangsha Liujunzi Tang

Combining this formula with TACE reduces the incidence of PES symptoms, such as upper abdominal pain, nausea, and vomiting (Evidence level: Grade III, strong recommendation).[30]

Xiaochaihu Tang

Combining this formula with TACE/ablation improves antitumor efficacy, prolongs progression-free survival, and enhances QOL (Evidence level: Grade II, strong recommendation).[31–34]

It ameliorates PES symptoms like fever, nausea, vomiting, and liver region pain (Evidence level: Grade II, strong recommendation).[32–35]

When combined with sorafenib, it reduces the incidence of adverse reactions such as diarrhea and proteinuria (Evidence level: Grade III, strong recommendation).[36]

Longdan Xiegan Tang

Combining this formula with TACE improves PES symptoms, including fever, diarrhea, nausea, vomiting, and liver region pain (Evidence level: Grade III, weak recommendation).[37,38]

Simo Tang:

Combining this formula with TACE improves gastrointestinal function and ameliorates constipation in patients with PLC (Evidence level: Grade III, strong recommendation).[39,40]

Chinese patent medicine (CPM) therapy

Overview

The application of CPMs in the treatment of PLC is characterized as being "simple, convenient, inexpensive, and effective". CPMs are categorized into three major types based on their therapeutic mechanisms:

- *Category I:* Strengthening Body Resistance (Fu Zheng Gu Ben): These medicines supplement Qi, strengthen the Spleen, nourish Qi and blood, tonify the Kidney, replenish essence, nourish Yin, and moisten dryness. Common examples include Kangai Injection, Shenqi Fuzheng Injection, Yangzheng Xiaoji Capsules, Shengmai Injection, and Shenmai Injection.
- *Category II:* Eliminating Pathogens and Antitumor Efficacy (Gong Xie Yi Liu): These medicines regulate Qi, activate blood, clear heat, detoxify, soften hardness, dissipate nodules, transform phlegm, and remove dampness, effectively "attacking toxins with toxins" (yi du gong du). Common examples include Huisheng Oral Liquid, Fufang Banmao Capsules, Jinlong Capsules, Fufang Kushen Injection, Huachansu (Cinobufacini), and Xiaoaiping (Tongguanteng) Injection.
- *Category III:* Integrated Strengthening and Antitumor Efficacy (Fu Zheng Yi Liu): These medicines aim to support Zheng Qi, detoxify, and dissipate nodules. Common examples include Huaier Granules, Cidan Capsules, Ganfule Capsules/Tablets, and Kanglaite Injection.

Integrated application of CPMs following surgical resection

Reducing postoperative recurrence and prolonging survival

The five-year recurrence rate for PLC following surgical resection is approximately 40–70%, primarily manifesting as intrahepatic recurrence.[41] Medications proven to reduce the postoperative recurrence rate and prolong OS include: Huaier Granules (Evidence level: Grade I, strong recommendation),[42–44] Jinlong Capsules (Evidence level: Grade II, strong recommendation),[45,46] Huachansu Capsules (Evidence level: Grade II, strong recommendation),[47] and Compound Kushen Injection (Evidence level: Grade III, weak recommendation).[48] The roles of Chinese patent medicines in postoperative management are summarized in Supplementary Table 1.

Immunomodulation

Following surgical resection of PLC, the administration of medications such as Jinlong Capsules (Evidence level: Grade II, strong recommendation),[46] Shenqi Fuzheng Injection (Evidence level: Grade II, strong recommendation),[49,50] and Compound Kushen Injection (Evidence level: Grade III, weak recommendation) can significantly elevate the levels of $CD4^+$ and $CD4^+/CD8^+$ T-cell subpopulations.[48] Additionally, Huachansu Capsules (Evidence level: Grade II, strong recommendation) can increase levels of complement C3, complement C4, IgA, IgM, and IgG, thereby enhancing host immunity.[47]

Ameliorating postoperative adverse reactions

Medications such as Compound Kushen Injection (Evidence level: Grade III, weak recommendation),[48] Shengmai Injection (Evidence level: Grade III, strong recommendation),[51] and Shenqi Fuzheng Injection (Evidence level: Grade II, strong recommendation) can effectively improve liver function abnormalities following PLC resection.[49,50]

Shengmai Injection (Evidence level: Grade III, strong recommendation) significantly alleviates postoperative symptoms such as fatigue,[51] sweating, and shortness of breath, thereby shortening the duration of hospitalization.

Improving postoperative QOL

The integrated application of Jinlong Capsules (Evidence level: Grade II, strong recommendation) following surgical resection of PLC can enhance the QOL for patients.[45,46]

Integrated application of CPMs with TACE/ablation

The therapeutic effects of Chinese patent medicines combined with TACE or ablation, including improvements in objective response rate, survival, quality of life, immune function, and adverse reactions, are summarized in Supplementary Table 2.

Enhancing therapeutic efficacy

Improving ORR:

- *Category I:* Eliminating Pathogens and Antitumor Efficacy: Jinlong Capsules (Grade II, strong recommendation)[52]; Huachansu Injection (Grade II, strong recommendation)[53]; Lanmanxi (Elemene) Emulsion/Injection (Grade II, strong recommendation)[54]; Fufang Kushen Injection (Grade II, strong recommendation)[55]; Huisheng Oral Liquid (Grade II, weak recommendation)[56]; Xiaoaiping Injection (Grade II, weak recommendation)[57]; Aidi Injection (Grade II, weak recommendation)[58]; Yadanzi Oil Emulsion (Grade II, weak recommendation).[59]
- *Category II:* Strengthening Body Resistance: Kangai Injection (Grade II, strong recommendation)[60]; Shenqi Fuzheng Injection (Grade II, strong recommendation).[61]
- *Category III:* Integrated Strengthening and Antitumor Efficacy: Huaier Granules (Grade II, strong recommendation)[62]; Yangzheng Xiaoji Capsules (Grade II, strong recommendation)[63–67]; Ganfule Capsules/Tablets (Grade II, strong recommendation)[68]; Kanglaite Injection (Grade II, strong recommendation)[69]; Cidan Capsules (Grade II, weak recommendation).[70]

Prolonging survival:

- *Category I:* Eliminating Pathogens and Antitumor Efficacy: Fufang Kushen Injection (Grade II, strong recommendation),[55] Huachansu Injection (Grade II, strong recommendation),[53] Jinlong Capsules (Grade II, strong recommendation),[52,71] Aidi Injection (Grade II, weak recommendation),[58] Yadanzi Oil Emulsion (Grade II, weak recommendation),[59] Lanmanxi Emulsion/Injection (Grade II, strong recommendation),[54] and Sodium Cantharidinate and Vitamin B6 Injection (Grade III, strong recommendation).[72]
- *Category II:* Integrated Strengthening and Antitumor Efficacy: Ganfule Capsules/Tablets (Grade II, strong recommendation),[68] Huaier Granules (Grade II, strong recommendation),[62] and Cidan Capsules (Grade II, weak recommendation).[70]

- Improving QOL following TACE/ablation:
- *Category I:* Eliminating Pathogens and Antitumor Efficacy: Fufang Kushen Injection (Grade II, strong recommendation),[73] Huachansu Injection (Grade II, strong recommendation),[53] Xiaoaiping Injection (Grade II, weak recommendation),[57] Huisheng Oral Liquid (Grade II, weak recommendation),[56] Aidi Injection (Grade II, weak recommendation),[58] and Yadanzi Oil Emulsion (Grade II, weak recommendation).[59]
- *Category II:* Strengthening Body Resistance: Shenqi Fuzheng Injection (Grade II, strong recommendation).[61]
- *Category III:* Integrated Strengthening and Antitumor Efficacy: Kanglaite Injection (Grade II, strong recommendation).[69]

Immunomodulation:

- *Category I:* Eliminating Pathogens and Antitumor Efficacy: Jinlong Capsules (Grade II, strong recommendation) and Aidi Injection (Grade III, weak recommendation) can significantly elevate the levels of $CD3^+$, $CD4^+$, and $CD4^+/CD8^+$ T-cell subpopulations.[52,58]
- *Category II:* Strengthening Body Resistance: Kangai Injection (Grade II, strong recommendation),[60] Shenqi Fuzheng Injection (Grade II, strong recommendation),[61] and Yangzheng Xiaoji Capsules (Grade II, strong recommendation) can elevate the levels of $CD3^+$, $CD4^+$, $CD4^+/CD8^+$, NK cells, and the $CD4^+/CD8^+$ ratio.[63–67]
- *Category III:* Integrated Strengthening and Antitumor Efficacy: Huaier Granules (Grade II, strong recommendation) can increase the $CD4^+/CD8^+$ T-cell ratio.[62]

Ameliorating adverse reactions

Category I: Ameliorating Postoperative Adverse Reactions:

- Lanmanxi (Elemene) Injection can reduce the incidence of postoperative gastrointestinal reactions, fever, and bone marrow suppression (Evidence level: Grade II, strong recommendation).[54]
- Fufang Kushen Injection can improve gastrointestinal reactions, leukopenia, and liver function abnormalities following TACE (Evidence level: Grade II, strong recommendation).[55]
- Huachansu Injection (Grade II, strong recommendation),[53] Jinlong Capsules (Grade II, strong recommendation),[52] and Xiaoaiping Injection (Grade II, weak recommendation) can improve postoperative leukopenia and liver function abnormalities.[57]
- Aidi Injection is effective in improving postoperative liver function abnormalities (Evidence level: Grade II, weak recommendation).[58]
- Yadanzi Oil Emulsion can ameliorate postoperative leukopenia (Evidence level: Grade II, weak recommendation).[59]

Category II: Strengthening Body Resistance:

- Shenqi Fuzheng Injection can improve leukopenia and reduce the incidence of gastrointestinal reactions (Evidence level: Grade II, strong recommendation).[61]

Ameliorating PES

The administration of CPMs, including Yangzheng Xiaoji Capsules (Grade III, weak recommendation),[74,75] Xuebijing Injection (Grade II, strong recommendation),[76–79] Qingkailing Injection (Grade III, weak recommendation),[80] Kangai Injection (Grade III,

weak recommendation),[81,82] Fufang Yexiazhu (Compound Phyllanthus) Granules (Grade III, weak recommendation),[83] Babaodan Capsules (Grade III, weak recommendation),[84,85] and Xihuang Capsules (Grade III, weak recommendation),[86] can significantly reduce the incidence of PES in patients with PLC.

Integrated application of CPMs with radiotherapy

The clinical benefits of Chinese patent medicines combined with radiotherapy, including antitumor efficacy, survival, quality of life, immune function, and adverse reactions, are summarized in Supplementary Table 3.

Enhancing antitumor efficacy improving

ORR: Huaier Granules (Grade III, strong recommendation),[87] Jinlong Capsules (Grade II, strong recommendation),[88] Huachansu Injection/Tablets (Grade III, weak recommendation),[89–91] Fufang Banmao (Compound Cantharidin) Capsules (Grade II, strong recommendation),[92] Aidi Injection (Grade II, weak recommendation),[93–95] Fufang Kushen Injection (Grade II, weak recommendation),[96,97] and Fufang Danshen (Compound Salvia) Injection (Grade II, weak recommendation).[98]

Improving disease remission rate: Kanglaite Injection (Grade II, strong recommendation),[99–101] Norcantharidin (Grade II, strong recommendation),[102] and Kangai Injection (Grade III, weak recommendation).[103]

Prolonging survival

The combination of radiotherapy with medications such as Fufang Banmao Capsules (Grade II, strong recommendation),[92] Norcantharidin (Grade II, strong recommendation),[102] Sodium Cantharidinate and Vitamin B6 Injection (Grade III, weak recommendation),[104] Aidi Injection (Grade II, weak recommendation),[94,95] Huachansu Injection (Grade III, weak recommendation),[89–91] Huaier Granules (Grade III, strong recommendation),[87] Kanglaite Injection (Grade II, strong recommendation),[99–101] and Pianzaihuang (Grade III, strong recommendation) can increase survival rates or prolong OS.[105]

Improving QOL

The integrated application of Aidi Injection (Grade II, weak recommendation),[94,95] Sodium Cantharidinate and Vitamin B6 Injection (Grade III, weak recommendation),[104] Fufang Kushen Injection (Grade II, weak recommendation),[96,97] Kangai Injection (Grade III, weak recommendation),[103] and Kanglaite Injection (Grade II, strong recommendation) with radiotherapy can enhance the QOL for patients.[99–101]

Immunomodulation

Fufang Banmao Capsules (Grade II, strong recommendation),[92] Norcantharidin (Grade II, strong recommendation),[102] Aidi Injection (Grade II, weak recommendation),[94,95] Huachansu Tablets (Grade III, weak recommendation),[89–91] and Kanglaite Injection (Grade II, strong recommendation) can elevate the levels of $CD3^+$, $CD4^+$, $CD8^+$, and the $CD4^+/CD8^+$ T-cell ratio.[99–101]

Reducing recurrence and metastasis rates

Kangai Injection (Evidence level: Grade III, weak recommendation).[103]

Ameliorating adverse reactions

Kangai Injection: Ameliorates gastrointestinal reactions, leukopenia, and thrombocytopenia (Grade III, weak recommendation).[103]

Kanglaite Injection and Pianzaihuang: Ameliorate fatigue, gastrointestinal reactions, bone marrow suppression, and liver function abnormalities (Grade II/III, strong recommendation).[99–101,105]

Fufang Banmao Capsules: Reduces the incidence of bone marrow suppression (Grade II, strong recommendation).[92]

Norcantharidin: Can improve liver function abnormalities (Grade II, strong recommendation).[102]

Integrated application of CPMs with chemotherapy

The effects of Chinese patent medicines combined with chemotherapy on antitumor efficacy, survival, quality of life, liver function, immune regulation, and adverse reactions are summarized in Supplementary Table 4.

Enhancing antitumor efficacy

Improving ORR: Kangai Injection (Grade II, weak recommendation),[106–108] Shenmai Injection (Grade III, strong recommendation),[109] Kanglaite Injection (Grade II, strong recommendation),[110–115] and Fufang Kushen Injection (Grade II, weak recommendation).[116–122] Improving disease remission rate: Cidan Capsules (Grade III, strong recommendation),[123–125] Aidi Injection (Grade II, strong recommendation),[126–134] and Dahuang Zhechong Pills (Grade III, weak recommendation).[135–137]

Prolonging survival

Dahuang Zhechong Pills (Grade III, weak recommendation) and Kanglaite Injection (Grade II, strong recommendation) are recommended to prolong OS.[111–115,135–137]

Improving QOL

The integrated application of the following medications with chemotherapy can enhance the QOL for patients: Huaier Granules (Grade II, strong recommendation),[138,139] Aidi Injection (Grade II, strong recommendation),[126–134] Kangai Injection (Grade II, weak recommendation),[106–108] Shenmai Injection (Grade III, strong recommendation),[109,110] Shenqi Fuzheng Injection (Grade III, weak recommendation),[140,141] Cidan Capsules (Grade III, strong recommendation),[123–125] Dahuang Zhechong Pills (Grade III, weak recommendation),[135–137] Huachansu Injection (Grade III, strong recommendation),[142–144] and Yadanzi Oil Soft Capsules (Grade III, weak recommendation).[145]

Ameliorating liver function abnormalities

Yadanzi Oil Soft Capsules (Grade III, weak recommendation),[145] Fufang Kushen Injection (Grade II, weak recommendation),[116–122] and Fufang Banmao Capsules (Grade III, strong recommendation) effectively improve liver function impairment during chemotherapy.[146]

Immunomodulation

The administration of Aidi Injection (Grade II, strong recommendation),[126–134] Kangai Injection (Grade II, weak recommendation),[106–108] Shenmai Injection (Grade III, strong recommendation),[109,110] Cidan Capsules (Grade III, strong recommendation),[123–125] Dahuang Zhechong Pills (Grade III, weak recommendation),[135–137] Fufang Kushen Injection (Grade II, weak recommendation),[118,122] Fufang Banmao Capsules (Grade III, strong recommendation),[146] Xiaozheng Yigan Tablets (Grade III, weak recommendation),[147] and Kanglaite Injection (Grade II, strong recommendation) can elevate the levels of $CD3^+$, $CD4^+$, $CD8^+$, and the $CD4^+/CD8^+$ T-cell ratio.[111–115]

Ameliorating adverse reactions

Aidi Injection (Grade II, strong recommendation),[126–134] Kangai Injection (Grade II, weak recommendation),[106–108] Shenmai Injection (Grade III, strong recommendation),[109,110] Shenqi Fuzheng Injection (Grade III, weak recommendation),[140,141] Cidan Capsules (Grade III, strong recommendation),[123–125] Dahuang Zhechong Pills (Grade III, weak recommendation),[135–137] Fufang Kushen Injection (Grade II, weak recommendation),[116–119,121,122] Huachansu Injection (Grade III, strong recommendation),[142–144] and Kanglaite Injection (Grade II, strong recommendation) can effectively reduce the incidence of gastrointestinal reactions,[111–115] alopecia (hair loss), hepatic and renal dysfunction, and leukopenia. These medications also alleviate the severity and shorten the duration of such adverse reactions.

Integrated application of CPMs with targeted/immunotherapy

The clinical roles of Chinese patent medicines in combination with targeted therapy and immunotherapy, including efficacy, survival, quality of life, and immune regulation, are summarized in Supplementary Table 5.

Enhancing antitumor efficacy

Improving ORR: Huaier Granules combined with sorafenib (Grade II, strong recommendation) can improve ORR and prolong survival.[148] Huachansu Capsules combined with sorafenib (Grade III, weak recommendation) may also enhance therapeutic efficacy and improve QOL.[149]

Improving disease remission rate: Huachansu Capsules/Tablets/Injection combined with sorafenib or lenvatinib (Grade II, strong recommendation),[150,151] Lanmanxi (Elemene) Injection combined with sorafenib (Grade II, weak recommendation).[152,153]

Prolonging survival

The combination of Lanmanxi Injection with sorafenib can prolong progression-free survival (Grade II, weak recommendation).[152,153] Huaier Granules combined with sorafenib (Grade II, strong recommendation) can improve ORR and prolong survival.[148] Huachansu Capsules combined with sorafenib (Grade III, weak recommendation) may also enhance therapeutic efficacy and improve QOL.[149]

Improving QOL

The following combinations can enhance patients' QOL: Huachansu Tablets with sorafenib or lenvatinib (Grade II, strong recommendation),[150,151] Jiedu Huoxue Formula combined with spleen polypeptide injection and apatinib may improve patients' QOL and immune function,[154] Shenqi Fuzheng Injection with sorafenib or apatinib (Grade II, strong recommendation),[155–157] and Huaier Granules combined with sorafenib (Grade II, strong recommendation) can improve ORR and prolong survival.[148] Huachansu Capsules combined with sorafenib (Grade III, weak recommendation) may also enhance therapeutic efficacy and improve QOL.[149]

Ameliorating liver function abnormalities

Shenqi Fuzheng Injection combined with sorafenib or apatinib effectively improves liver function impairment (Grade II, strong recommendation).[155–157]

Immunomodulation

Lanmanxi Injection combined with sorafenib (Grade II, weak recommendation),[152,153] and Shenqi Fuzheng Injection combined with sorafenib or apatinib (Grade II, strong recommendation),[155–157] can elevate $CD4^+$ and $CD8^+$ T-cell levels.

Ameliorating adverse reactions

Lanmanxi Injection combined with sorafenib (Grade II, weak recommendation),[152,153] and Shenqi Fuzheng Injection combined with sorafenib or apatinib (Grade II, strong recommendation),[155–157] can alleviate adverse reactions induced by sorafenib, including gastrointestinal reactions, hypertension, and hand-foot syndrome.

TCM treatment for PLC complications

The applications of Chinese patent medicines for managing complications of primary liver cancer, including ascites, fatigue, and pain, are summarized in Supplementary Table 6.

Ameliorating malignant ascites

Intraperitoneal perfusion of cisplatin combined with Aidi Injection (Grade II, strong recommendation),[158] Kangai Injection (Grade II, weak recommendation),[158] Lanmanxi (Grade II, weak recommendation),[158] or Fufang Kushen Injection (Grade II, weak recommendation) can effectively ameliorate malignant ascites.[158]

Ameliorating cancer-related fatigue

Kangai Injection can alleviate cancer-related fatigue following chemotherapy, improve QOL, and reduce the incidence of post-chemotherapy adverse reactions such as leukopenia, alopecia, and constipation (Grade III, weak recommendation).[159]

Ameliorating cancer-related pain

The combination of Huachansu Injection with morphine sustained-release tablets for cancer-related pain can reduce morphine dosage and enhance the QOL for patients (Grade III, weak recommendation).[160]

External TCM therapies based on pattern differentiation

Overview

External TCM therapies, guided by fundamental TCM theories, are methods applied to the body surface or performed externally. These therapies primarily function through pharmacological, thermal, and mechanical actions. By acting directly on the skin or the site of limb lesions, they regulate Qi and blood, dredge meridians, penetrate the striae and interstices (chouli), strengthen body resistance and eliminate pathogens, warm meridians to dissipate cold, resolve swelling and nodules, and unblock collaterals to relieve pain. These methods constitute an essential component of TCM.[161] Commonly used external TCM therapies include massage, cupping, TCM enema, acupoint application, acupuncture, and moxibustion (filiform needle acupuncture, electroacupuncture, and moxibustion), and auricular point pressing.

Ameliorating postoperative adverse reactions

External TCM therapies can alleviate symptoms such as abdominal distension, intestinal obstruction, nausea, vomiting, hiccup, and sleep disorders following surgical resection of PLC.

Gastrointestinal dysfunction: For patients with abdominal distension or intestinal obstruction, recommended interventions include:

- TCM enema (Dahuang Fuzi Xixin Tang) (Grade III, strong recommendation).[162]
- Colonic dialysis followed by TCM enema (Decoction of Dahuang, Houpo, Zhishi, and Mangxiao in a 4:8:4:3 ratio) (Grade III, strong recommendation).[163]
- Acupoint application at Zusanli (ST36) using Houpo powder combined with auricular point pressing (points: large intestine,

small intestine, stomach, spleen, sympathetic, etc.) (Grade II, strong recommendation).[164–167] These methods improve abdominal distension and promote the recovery of flatus, defecation, and bowel sounds.*Nausea and vomiting:* Acupoint application using Wuzhuyu powder mixed with ginger juice at bilateral Neiguan (PC6), Zusanli (ST36), and Zhongwan (CV12) (Grade III, strong recommendation).[168]

Intractable hiccup: Electroacupuncture at Cervical Jiaji points (Grade III, strong recommendation).[169]

Sleep disorders: Auricular point pressing (points: Shenmen, endocrine, liver, kidney, etc.) (Grade III, strong recommendation).[170,171]

Liver depression and spleen deficiency pattern: Auricular point pressing (points: Shenmen, subcortex, heart, sympathetic, endocrine, liver, spleen, etc.) (Grade III, strong recommendation).[171]

Ameliorating post-chemotherapy anorexia

Transcutaneous electrical acupoint stimulation at Hegu (LI4), Neiguan (PC6), and Zusanli (ST36) combined with palonosetron can improve anorexia following chemotherapy for PLC (Grade II, strong recommendation).[172]

Ameliorating ascites

External application of TCM (applied to the body surface projection of the deepest ascitic area; commonly used herbs: Mangxiao, Dafupi, Zhuling, Fuling, etc.) combined with conventional Western medicine can reduce ascitic fluid volume and ameliorate symptoms such as abdominal distension, poor appetite, and lower extremity edema (Grade III, strong recommendation).[173–175]

Ameliorating cancer-related fatigue

Moxibustion at Guanyuan (CV4), Zusanli (ST36), and Shenque (CV8) can alleviate cancer-related fatigue in patients with PLC (Grade III, strong recommendation).[176,177]

Relieving cancer-related pain

Recommended external therapies for pain relief include:

- Acupoint application (points: Riyue [GB24], Qimen [LR14], Zhangmen [LR13], Shenque [CV8], Ganshu [BL18], Danshu [BL19], etc.; commonly used herbs: Ruxiang, Moyao, Jianghuang, Chuanxiong, Dingxiang, etc.) (Grade II, strong recommendation).[178–184]
- Acupuncture (points: Zusanli [ST36], Neiguan [PC6], Hegu [LI4], Sanyinjiao [SP6], etc.) (Grade III, strong recommendation).[185]
- Heat-sensitive moxibustion (points: Right Zhangmen [LR13], Right Riyue [GB24], Bilateral Xuehai [SP10], Bilateral Sanyinjiao [SP6], and Bilateral Taichong [LR3]) (Grade III, strong recommendation).[186]
- Auricular point pressing (points: abdomen, liver, spleen, stomach, sympathetic, Shenmen, heart, etc.) (Grade III, strong recommendation).[187]

Health management and nursing care

Emotional regulation (Diaoshe Qingzhi)

Patients with liver cancer often experience negative emotions such as fear, anxiety, and depression, which significantly impact treatment and recovery.[188,189] Psychological interventions can guide patients to cope positively with the disease and its treatment. Medical personnel may employ TCM emotional induction therapy (Qingzhi Shudao) to regulate patient emotions. This includes various intervention methods such as:

- Explanation and reassurance (Shiyi Jiehuo).
- Distraction and character transformation (Yiqing Yixing).
- Emotional counter-balancing (Qingzhi Xiangsheng).

These methods aim to harmonize Yin and Yang, ensure the smooth flow of Qi and blood, and promote a pleasant mental state.[190] Support from professional psychologists should be sought when necessary.

Dietary nursing (Yinshi Tiaohu)

Patients with liver cancer should follow the dietary principles of "high protein, high vitamins, and a balanced diet".[191]

Nutritional intake: Consume appropriate amounts of high-protein foods, such as fish, shrimp, eggs, and milk, along with fresh vegetables and fruits to maintain regular bowel movements.

Dietary restrictions: Strictly abstain from alcohol, avoid high-fat diets, and refrain from consuming hard or irritating foods.

Complication-specific care: Patients prone to postoperative ascites must strictly control salt intake, prioritizing a low-sodium diet.

Decompensated cirrhosis: For patients in the decompensated stage of liver cirrhosis, appropriate late-night snacks should be provided.

Rehabilitation and rest (Kangfu Xiuyang)

Patients may engage in appropriate exercise based on their condition, prioritizing aerobic activities.[192]

Recommended activities: Slow walking, fitness Qigong, Tai Chi, yoga, and square dancing.

Exercise planning: Specific exercise plans should be tailored to the patient's age, gender, treatment history, and physical status.

Implementation: Training should be progressive and adjusted promptly according to the patient's specific circumstances.[193]

Appropriate exercise helps improve the QOL and promotes disease recovery.

Monitoring and follow-up

In accordance with the TCM theory of Preventive Treatment of Disease (Zhi Wei Bing), the prevention and control of PLC prioritize "preventing disease before it occurs, preventing deterioration after it occurs, and preventing recurrence after recovery". Following the tertiary prevention principles proposed in the Consensus on Tertiary Prevention of Primary Liver Cancer (2022 Edition),[194] monitoring and follow-up for patients after radical treatment should be conducted based on recurrence risk stratification. This involves managing etiology-related diseases and implementing anti-recurrence therapies to reduce recurrence rates, improve early diagnosis of recurrent PLC, and enhance long-term prognosis.

Patients with liver cancer should undergo regular monitoring. The following measures can be employed to monitor intrahepatic recurrence and extrahepatic metastasis:

Serological markers: Combined testing of serum AFP, AFP-L3, and/or des-gamma-carboxy prothrombin.[194]

Imaging modalities: Abdominal ultrasound; Multiparametric MRI; Dynamic contrast-enhanced CT; If necessary, PET-CT and/or bone scintigraphy (bone scan) can be performed.[194]

Prevention

The following preventive measures are established with reference to the Expert Consensus on Primary Prevention of Liver Cancer in China (2018) and the Consensus on Secondary Prevention of Primary Liver Cancer (2021 Edition).[195,196]

Primary prevention

Primary prevention involves measures to prevent the initial harm of risk factors that can lead to HCC in the general population. The target population is the general public. Specific measures include:

- *Hepatitis B vaccination:* Implementation of prophylactic vaccination programs, including specific immunization schedules for newborns and children of mothers with different HBV infection statuses.
- *Antiviral therapy:* Treatment for patients with chronic hepatitis B and C.
- *Environmental safety:* Prevention and avoidance of exposure to aflatoxin and cyanobacterial toxins.
- *Lifestyle modification:* Altering lifestyles associated with high carcinogenic risks.

Secondary prevention

Secondary prevention focuses on populations with chronic liver disease, aiming to control related etiologies and risk factors while performing screening and monitoring based on risk stratification to reduce or delay the occurrence of HCC. The target population is individuals with chronic liver disease. Specific measures include:

- *Etiological treatment:* Antiviral therapy for HBV/HCV and treatment for other underlying causes of liver disease.
- *Anti-fibrotic therapy:* Treatments aimed at reducing or reversing hepatic fibrosis.
- *Risk factor control:* Management of relevant health and environmental risk factors.
- *Screening and monitoring:* Implementation of protocols for the early detection and monitoring of HCC development.

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Consensus development (YW, WXZ, NG, XYX, JCG), expert panel member (XHL, LHC, QL, ZJC, XJC, CJX, JMH, JWJ, FYB, XQY, YW, BJL, JFB, DWM, XD, YL, XMD, XLC, JTL, YMN, GJT, XBW, ZYY, XJW, HJZ, JW, FLN, XZW), clinical guidance formulation (LL, WC, HSY, SMW, JL, XNZ, SYW, MW, XLB, YL, XT, LS, JKW, XFZ), literature search & analysis (HJ, HC, QQN, DHY, YY, FNY), and evidence-based review (WC). All authors have made significant contributions to this study and have approved the final manuscript.

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References

[1] Wang DF. A Study on the historical origins and related treatment of liver accumulation [Dissertation] (in Chinese). Xianyang: Shaanxi University of Chinese Medicine; 2017.
[2] Chinese Society of Traditional Chinese Medicine. Guidelines for Traditional Chinese Medicine Diagnosis and Treatment of Tumors: ZYYXH/T 136-156-2008 (in Chinese). Beijing: China Press of Traditional Chinese Medicine; 2008.
[3] General Office of National Health Commission. Standard for diagnosis and treatment of primary liver cancer (2022 edition) (in Chinese). J Clin Hepatol 2022;38(2):288–303. doi:10.3969/j.issn.1001-5256.2022.02.009.
[4] Lin HS. Guidelines of diagnosis and therapy in oncology with traditional Chinese medicine (in Chinese). Beijing: People's Medical Publishing House; 2014.
[5] Chinese Association of Integrated Traditional Chinese and Western Medicine, Chinese Society of Traditional Chinese Medicine, Chinese Medical Association. Guidelines for the Diagnosis and Treatment of Primary Liver Cancer with Integrated Traditional Chinese and Western Medicine (in Chinese). 2023.
[6] Therasse P, Arbuck SG, Eisenhauer EA, Wanders J, Kaplan RS, Rubinstein L, *et al*. New guidelines to evaluate the response to treatment in solid tumors. European Organization for Research and Treatment of Cancer, National Cancer Institute of the United States, National Cancer Institute of Canada. J Natl Cancer Inst 2000;92(3):205–216. doi:10.1093/jnci/92.3.205, PMID:10655437.
[7] Lencioni R, Llovet JM. Modified RECIST (mRECIST) assessment for hepatocellular carcinoma. Semin Liver Dis 2010;30(1):52–60. doi:10.1055/s-0030-1247132, PMID:20175033.
[8] Cheng RW, Li P, Deng LP. Effect of TACE combined with Chaihu Shugan Powder on hepatocellular carcinoma of liver depression and spleen deficiency (in Chinese). Guid J Tradit Chin Med Pharm 2016;22(20):20–23. doi:10.13862/j.cnki.cn43-1446/r.2016.20.007.
[9] Chen L, Zhu XL, Lin J, Li DL. Efficacy and safety of TACE combined with traditional Chinese medicine versus TACE alone in hepatocellular carcinoma: bayesian network meta-analysis and pharmacological mechanisms study. Front Pharmacol 2024;15:1495343. doi:10.3389/fphar.2024.1495343, PMID:39712495.
[10] Wu Y. Clinical efficacy of chaihu shugan powder in the treatment of liver qi stagnation after intervention of hepatocellular carcinoma [Dissertation] (in Chinese). Harbin: Heilongjiang University of Chinese Medicine; 2019.
[11] Yan TF, Cao ZQ, Yao SS, Xu HJ. Clinical observation of Chaihu Shugan Powder combined with transcatheter arterial chemoembolization in the treatment of primary liver cancer (in Chinese). World J Integr Tradit West Med 2021;16(7):1357–1361. doi:10.13935/j.cnki.sjzx.210737.
[12] Wu MH, Zhou YF, Chen XF, Zhu YJ, Xie YR, Tu JF. Chaihushugansan in combination with fentanyl transdermal system as therapy in pain of liver cancer patients (in Chinese). Chin J Integr Tradit West Med Liver Dis 2013;23(2):83–85. doi:10.3969/j.issn.1005-0264.2013.02.006.
[13] Lu DY, Ye XW. Clinical efficacy of Xuefu Zhuyu Decoction in treatment of pain with qi stagnation and blood stasis after transcatheter arterial chemoembolization for primary liver cancer: An analysis of 30 cases (in Chinese). J Anhui Univ Chin Med 2016;35(1):45–47. doi:10.3969/j.issn.2095-7246.2016.01.015.
[14] Meng TT, Zhang TT, Deng Q, Zhao YP. Effect of Xuefu Zhuyu Decoction assisted XELOX chemotherapy on the expression of serum HIF-1α and TSP-1 in patients with advanced liver cancer (in Chinese). Chin J Integr Tradit West Med Liver Dis 2022;32(7):606–609. doi:10.3969/j.issn.1005-0264.2022.07.009.
[15] Qian HL. Clinical observation on treatment of primary liver cancer jaundice with combination of traditional Chinese and western medicine (in Chinese). Mod J Integr Tradit Chin West Med 2011;20(24):3021–3022. doi:10.3969/j.issn.1008-8849.2011.24.017.
[16] Wu JX, Chen DZ. Modified Yinchenhao Decoction in treating postoperative jaundice of liver cancer (in Chinese). Zhejiang J Integr Tradit Chin West Med 2006;16(3):160–161. doi:10.3969/j.issn.1005-4561.2006.03.018.
[17] Xu YF. Clinical observation on treating jaundice following primary he-

patic carcinoma in the integrative medicine (in Chinese). Clin J Chin Med 2016;8(10):86–87. doi:10.3969/j.issn.1674-7860.2016.10.046.
[18] Chen YY. Clinical observation on Xiaoyao Powder in treating post-embolization syndrome of liver cancer (liver depression and spleen deficiency syndrome) [Dissertation]. Guiyang: Guiyang College of Traditional Chinese Medicine; 2017.
[19] Chen XW, Jiang JW, Zhang YJ, Qiu XT, Zeng JZ, Jin GY, *et al*. Clinical observation of Danzhi Xiaoyao Powder for preventing and treating embolism syndrome after transcatheter hepatic arterial chemoembolization in primary liver carcinoma patients differentiated as liver depression and spleen deficiency type (in Chinese). J Guangzhou Univ Tradit Chin Med 2021;38(8):1564–1570. doi:10.13359/j.cnki.gzxbtcm.2021.08.005.
[20] Wang D. Clinical observation of Danzhi Xiaoyao Powder combined with TACE in the treatment of advanced liver cancer [Dissertation] (in Chinese). Xianyang: Shaanxi University of Chinese Medicine; 2021.
[21] Xiong JL. Clinical observation on 24 cases of primary liver cancer treated by chemotherapy combined with Xiaoyao Powder (in Chinese). Guid J Tradit Chin Med Pharm 2011;17(2):18–20. doi:10.13862/j.cnki.cn43-1446/r.2011.02.053.
[22] Yang H. The Clinical Observation on the Effect of Xiaoyaosan Flavored Combined with TACE Treat of Primary Liver Cancer [Dissertation] (in Chinese). Nanning: Guangxi University of Chinese Medicine; 2018.
[23] Li ZX, Xu LJ, Wen XY, Sun YH, Xia M. Clinical observation of Jiawei Xiaoyao Powder combined with radiofrequency ablation in the treatment of liver cancer (in Chinese). J Med Theory Pract 2022;35(5):794–796. doi:10.19381/j.issn.1001-7585.2022.05.027.
[24] Ji J, Huang HQ, Wang X, Chen B, Zhang T. Clinical observation on Xiaoyao Powder combined with intervention of hepatocellular carcinoma of liver-depression and spleen-deficiency syndrome (in Chinese). J Liaoning Univ Tradit Chin Med 2012;14(6):80–82. doi:10.13194/j.jlunivtcm.2012.06.82.jij.117.
[25] Xu CX, Li D, Ni LQ, Liu YM, Yu XX. Effect of modified Xiaoyao Powder combined with three-dimensional conformal radiotherapy on serum growth factors and immune function in patients with primary liver cancer (in Chinese). J N Chin Med 2020;52(4):26–29. doi:10.13457/j.cnki.jncm.2020.04.008.
[26] Li X. Clinical observation on modified Yiguan Decoction combined with gamma knife in the treatment of primary liver cancer with yin deficiency of liver and kidney [Dissertation] (in Chinese). Changsha: Hunan University of Chinese Medicine; 2020. doi:10.27138/d.cnki.ghuzc.2020.000216.
[27] Zhang LH, Zhuang ZJ, Wang JC, Zhang WZ, Cao Y. Clinical study on the treatment of liver cancer with middle and advanced stage by modified Yiguan Jian combined with Argon-helium cryosurgery cryoablation (in Chinese). China J Chin Med 2015;30(8):1092–1094. doi:10.16368/j.issn.1674-8999.2015.08.377.
[28] Lu YQ, Li HB. A clinical observation on supplemented Yiguan brew combined with transcatheter hepatic arterial chemo-embolization for 42 cases of primary liver cancer (in Chinese). J Tradit Chin Med 2013;54(5):405–408. doi:10.13288/j.11-2166/r.2013.05.029.
[29] Sun Y. Effect of Jiawei Yiguan Decoction combined with apatinib mesylate on curative effect and quality of life of patients with advanced primary liver cancer (in Chinese). Yunnan J Tradit Chin Med Mater Med 2019;40(4):56–57. doi:10.16254/j.cnki.53-1120/r.2019.04.025.
[30] Cui DL, Huang XB. Effect of Xiangsha Liujunzi Decoction on liver function of patients with primary liver cancer after interventional therapy (in Chinese). Guid J Tradit Chin Med Pharm 2015;21(16):39,45. doi:10.13862/j.cnki.cn43-1446/r.2015.16.012.
[31] Zhang WW, Jiang YX, Yang D, Hu QC, Wen JX, Guo YG, *et al*. Systematic review of efficacy and safety of xiaochaihu decoction combined with transcatheter arterial chemoembolization in the treatment of primary liver cancer (in Chinese). Eval Anal Drug Use Hosp China 2020;20(2):149–153,157. doi:10.14009/j.issn.1672-2124.2020.02.005.
[32] Yang FM, Yang YQ. Xiaochaihu decoction in improvement of side reaction of liver cancer after radiofrequency ablation for 32 cases (in Chinese). Chin Med Mod Distance Educ China 2015;13(20):50–52. doi:10.3969/j.issn.1672-2779.2015.20.026.
[33] Wang WY, Zhang KQ, Liu JM, Yu HP, Wan P, Yang WJ, *et al*. Clinical study of Jiawei xiaochaihutang combined with microwave ablation in treatment of primary hepatocellular carcinoma (in Chinese). Chin J Exp Tradit Med Formulae 2022;28(7):121–126. doi:10.13422/j.cnki.syfjx.20220794.
[34] Zhao WW, Sun HT, Chen ZM, Zhao J, Teng H, Xu XX. Clinical observation of Xiaochaihu Decoction combined with microwave ablation and portal vein perfusion in the treatment of primary liver cancer (in Chinese). Chin J Integr Tradit West Med Dig 2017;25(7):543–546. doi:10.3969/j.issn.1671-038X.2017.07.17.
[35] Li ZJ, Liang D, Zhang YC, Huang SY, Zhou JX, Shen XL, *et al*. Clinical study on Xiaochaihu Decoction combined with Liuwei Dihuang Decoction to prevent and treat 50 cases of post-embolism syndrome after TACE for primary liver cancer (in Chinese). Jiangsu J Tradit Chin Med 2020;52(5):38–41. doi:10.19844/j.cnki.1672-397X.2020.05.010.
[36] Yang CJ. Clinical Observation of Jiawei Xiaochaihu Decoction combined with sorafenib in the treatment of middle and advanced primary liver cancer [Dissertation] (in Chinese). Chengdu: Chengdu University of Traditional Chinese Medicine; 2021.
[37] Chen XW, Jiang JW, Lin FH. Longdan Xiegan Decoction in the treatment of embolism syndrome after interventional therapy on primary hepatocellular carcinoma (in Chinese). J Nanjing Univ Tradit Chin Med 2016;32(3):224–228. doi:10.14148/j.issn.1672-0482.2016.0224.
[38] Zhang CJ. Observation on therapeutic effect of Longdan Xiegan Decoction on embolism syndrome after TACE for primary liver cancer (in Chinese). Mod J Integr Tradit Chin West Med 2017;26(27):3001–3003. doi:10.3969/j.issn.1008-8849.2017.27.012.
[39] Fan WX, Wang SH, Huang R, Hu QY, Bai XB, Ning BQ. Clinical observation on the treatment of 41 cases of gastrointestinal dysfunction after interventional chemotherapy and embolization of primary liver cancer with Simotang oral liquid (in Chinese). Chin J Integr Tradit West Med Dig 2016;24(8):632–633. doi:10.3969/j.issn.1671-038X.2016.08.17.
[40] Yi CH. Clinical observation of Simo decoction combined with lactulose in treatment of constipation after interventional therapy of liver cancer (in Chinese). J Hubei Univ Chin Med 2015;17(3):59–60. doi:10.3969/j.issn.1008-987x.2015.03.19.
[41] Xue WH. Integrated diagnosis and treatment plan of traditional Chinese and Western medicine for primary liver cancer (in Chinese). In: Proceedings of the 2013 Academic Symposium on New Advances in Multidisciplinary Comprehensive Diagnosis and Treatment of Cancer; 2013 Oct 18-21; Hangzhou, China. p. 148.
[42] Chen Q, Chen XP. Adjuvant Huaier Granule for hepatocellular carcinoma after curative resection: A phase IV, multicenter, randomized, and parallel-group controlled clinical trial. J Hepatol 2017;66(1):S622. doi:10.1016/s0168-8278(17)31689-6.
[43] Zhang QH, Liang YH. Clinical efficacy of Huaier Granule combined with sorafenib on patients with postoperative recurrence of primary liver cancer (in Chinese). Pract J Cancer 2019;34(9):1560–1562. doi:10.3969/j.issn.1001-5930.2019.09.049.
[44] Han DZ. Effects of Huaier Granules combined with sorafenib on postoperative recurrence patients with primary hepatocellular carcinoma and its effects on alpha-fetoprotein-L3 level (in Chinese). China J Pharm Econ 2022;17(1):64–67. doi:10.12010/j.issn.1673-5846.2022.01.013.
[45] Li H, Zhang B, Yu GY. Preventive effect of Jinlong capsule on recurrence and metastasis of resectable liver cancer after operation (in Chinese). Cap Med 2007;14(24):35–36.
[46] Xie B, Tang C, Huang J. Effect of jinlong capsule combined with hepatectomy on HCC intrahepatic metastasis (in Chinese). Chin J Cancer Prev Treat 2008;15(20):1584–1586. doi:10.16073/j.cnki.cjcpt.2008.20.017.
[47] Wang C, Bai H, Xiao H, Song YL. Effect of cinobufotalin capsule combined with interferon-α on postoperative immune function and long-term prognosis in patients with small hepatocellular carcinoma (in Chinese). World Clin Drugs 2022;43(5):554–558,564. doi:10.13683/j.wph.2022.05.011.
[48] Zhang DW, He J, Zhang HG, Hao CH, Zhang YW, Wang LL, *et al*. Study on the effect of compound Sophora flavescens injection combined with intraoperative margin treatment on postoperative recurrence and metastasis of patients with primary liver cancer (in Chinese). Mod J Integr Tradit West Med 2017;26(21):2348–2350. doi:10.3969/j.issn.1008-8849.2017.21.024.

[49] Cheng L, Zhu AX. Effect of Shenqi Fuzheng injection on immune function of patients after laparoscopic radical resection of liver cancer (in Chinese). Int Med Health Guid Issues 2015;21(21):3209–3211. doi:10.3760/cma.j.issn.1007-1245.2015.21.036.
[50] Li CC. Effect of Shenqifuzhen injection on immunity of postoperative patients of hepatocellular carcinoma [Dissertation] (in Chinese). Nanjing: Nanjing University of Chinese Medicine; 2016.
[51] Chen R, Zhou YT, Wang JC. Observation of curative effect of Shengmai injection in adjuvant treatment of hepatocellular carcinoma (in Chinese). J N Chin Med 2015;47(7):121–122. doi:10.13457/j.cnki.jncm.2015.07.054.
[52] Yan KQ, Wang JY, Li G, He JM. Meta-analysis of randomized controlled trials of jinlong capsules combined with transcatheter arterial chemoembolization in the treatment of primary liver cancer (in Chinese). J Oncol Chin Med 2021;3(2):95–102. doi:10.19811/j.cnki.ISSN2096-6628.2021.02.021.
[53] Xu XH, Wu Y, Yi KJ, Hao TT. Overview on systematic reviews of huachansu injection combined with transcatheter arterial chemoembolization for treatment of liver cancer (in Chinese). Chin J Inf Tradit Chin Med 2022;29(4):27–33. doi:10.19879/j.cnki.1005-5304.202105334.
[54] Yang ZM, Liu M, Lin SM, Liu LH, Wei CS, He JS. Meta-analysis of the efficacy and safety of transhepatic arterial perfusion of elemenum emulsion combined with transcatheter arterial chemoembolization in the treatment of primary hepatic carcinoma (in Chinese). J Guangzhou Univ Tradit Chin Med 2022;39(11):2701–2708. doi:10.13359/j.cnki.gzxbtcm.2022.11.039.
[55] Yang WL, Xu HM, Zhao HL, Liu Q, Nie YQ. Meta-analysis of clinical efficacy and safety of compound Kushen injection combined with transcatheter arterial chemoembolization in the treatment of primary liver cancer (in Chinese). Lishizhen Med Mater Med Res 2022;33(3):767–770. doi:10.3969/j.issn.1008-0805.2022.03.75.
[56] Chen JJ, Yu ZP, Yao Y, Jiao DC, Han XW. Huisheng oral liquid combined with TACE for treatment of primary hepatic carcinoma: Meta-analysis (in Chinese). Chin J Interv Imag Ther 2019;16(9):545–549. doi:10.13929/j.1672-8475.201903023.
[57] Lin RT, Chen ZQ, Lin JT, Lin LZ. Efficacy and safety of xiaoaiping injection combined with transcatheter arterial chemoembolization in treatment of primary hepatic carcinoma: A meta-analysis (in Chinese). World J Integr Tradit West Med 2020;15(10):1783–1789. doi:10.13935/j.cnki.sjzx.201005.
[58] Zheng JW, Zhang D, Wu JR, Liu S, Zhang B. Meta-analysis on the randomized controlled trials of aidi injection treating for liver carcinoma (in Chinese). Chin J Pharmacoepidemiol 2017;26(8):540–546. doi:10.19960/j.cnki.issn1005-0698.2017.08.006.
[59] Liu YS, Bai Y, Lv SQ, Sun Q. A meta-analysis on the efficacy and safety of Brucea javanica oil emulsion combined with TACE in treating moderate or advanced primary liver cancer (in Chinese). Chin J Integr Tradit West Med 2017;37(9):1063–1068. doi:10.7661/j.cjim.20170622.162.
[60] Ma X, He X, Li HT, Wei SZ, Zou YF, Zhao YL. Meta-analysis of Kang'ai Injection combined with TACE in treating primary hepatic carcinoma (in Chinese). Chin Tradit Pat Med 2019;41(7):1564–1572. doi:10.3969/j.issn.1001-1528.2019.07.016.
[61] Yang WT, Hou EC. Efficacy and safety of Shenqi Fuzheng Injection combined with transcatheter arterial chemoembolization for primary liver cancer: A Meta analysis (in Chinese). China Med Her 2017;14(19):110–113.
[62] Zhang SH, Tang Y, Yue H, Mao XB, Huang SQ, Wu G, *et al*. Efficacy of Huaier Granule combined with transcatheter arterial chemoembolization in treatment of primary liver cancer: A meta analysis (in Chinese). Chin J Bases Clin Gen Surg 2020;27(7):855–860. doi:10.7507/1007-9424.201910035.
[63] Sun L, Ren JX, Tian Y, Gao XD. A randomized, double-blind and multi-centre study of interventional chemotherapy combined with yangzhengxiaoji capsule in treating primary hepatic carcinoma (in Chinese). World Chin Med 2013;8(6):688–691. doi:10.3969/j.issn.1673-7202.2013.06.034.
[64] Zhang SY, Gu CH, Gao XD, Wu YL. Randomized double-blind multicenter clinical study of Yangzheng Xiaoji Capsule as adjuvant to interventional chemotherapy for primary liver cancer (in Chinese). In: 10th International Conference on Collateral Disease; 2014 Oct 10-12; Beijing, China.
[65] Cheng CY, Cai SY, Feng L. Clinical study of yangzheng xiaoji capsule assisted interventional chemotherapy in the treatment of patients with primary liver cancer (in Chinese). Chin J Pract Med 2020;47(18):114–117. doi:10.3760/cma.j.cn115689-20200606-02861.
[66] Song DG, Tan P, Shi H. Efficacy observation of yangzhengxiaoji capsule combined with hepatic artery chemotherapy embolism in improving liver function in patients with primary hepayic carcinoma (in Chinese). World Chin Med 2013;8(8):973–975. doi:10.3969/j.issn.1673-7202.2013.08.042.
[67] Shu JH, Zhou RY, Wang WH. Clinical observation of "Yangzheng Xiaoji Capsule" and interventional chemotherapy in treating primary liver cancer (in Chinese). Shanghai J Tradit Chin Med 2013;47(6):30–31. doi:10.16305/j.1007-1334.2013.06.043.
[68] Yan YZ, Tang H, You J. Meta-analysis of efficacy of Ganfule combined with TACE in the treatment of hepatocellular carcinoma (in Chinese). China Med Her 2020;17(32):87–91.
[69] Sun DX, Yang Z, Long FX, Wei XM, Tang DX. Efficacy and safety of Kanglaite injection combined with transarterial chemoembolization in treatment of advanced liver cancer: A Meta-analysis (in Chinese). J Clin Hepatol 2020;36(2):363–368. doi:10.3969/j.issn.1001-5256.2020.02.026.
[70] Liu GF, Li F, Bi XJ, Zhu BH. Systematic review of clinical effects of Cidan capsules combined with TACE in treatment against primary liver cancer (in Chinese). Chin J Hosp Pharm 2016;36(17):1496–1500. doi:10.13286/j.cnki.chinhosppharmacyj.2016.17.15.
[71] Ye X, Ge ZM, Fei XB, Wang S, Cheng YY, Chen XM, *et al*. Clinical study on HIFU combined with jinlong capsules in treating 54 cases of primary liver cancer (in Chinese). Chin J Clin Oncol 2008;35(7):372–374. doi:10.3969/j.issn.1000-8179.2008.07.004.
[72] Fang XH, Xu J. Cantharidin sodium vitamin B6 injection as assistant therapy for treating liver cancer in 37 cases (in Chinese). China Pharm 2016;25(1):25–26,27.
[73] Yang WL. Clinical efficacy of compound Kushen injection against liver cancer and the proliferation and autophagy of liver cancer cells in vitro [Dissertation] (in Chinese). Guangzhou: Guangzhou Medical University; 2021.
[74] Chu JS, Wu QY, Huang YQ, Yang YH. Effect of Yangzhengxiaoji capsule combined with thalidomide on quality of life after TACE for advanced hepatocellular carcinoma (in Chinese). Asia Pac Tradit Med 2016;12(24):159–161. doi:10.11954/ytctyy.201624070.
[75] Huang WK, You LN. Clinical observation of Yangzheng Xiaoji Capsule in reducing adverse reactions after TACE in patients with advanced primary liver cancer (in Chinese). In: 13th International Congress of Collaterals; 2017 Feb 24-26; Guangzhou, China.
[76] Li H, Li HX, Wang XX. Efficacy of Xuebijing injection in the treatment of post-interventional Syndrome of primary liver cancer and its effects on liver function and serum CRP, TNF-AND VEGF levels (in Chinese). Chin J Interv Radiol Electron Ed 2022;10(1):27–31. doi:10.3877/cma.j.issn.2095-5782.2022.01.005.
[77] Wei SF. Clinical Observation of Xuebijing Injection in Reducing Primary Liver Cancer Post-chemoembolization Syndrome [Dissertation] (in Chinese). Guangzhou: Guangzhou University of Chinese Medicine; 2018.
[78] Xiang DK, Xie JY, Wang D, Zou H, Du J, Luo W. Study on Xuebijing injection on plasma endotoxin and VEGF of the liver cancer treated with transcatheter arterial chemoembolization (in Chinese). China J Mod Med 2013;23(35):88–92.
[79] Mao YQ, Wu XX, Deng J, Chen W, Lu ZH. Influence of Xuebijing injection on plasma endotoxin and liver function of the liver cancer treated with transcatheter arterial chemoembolization (in Chinese). Chin J Integr Tradit West Med Dig 2011;19(4):224–226.
[80] Luo HY, Wu WY, Lu JR, Xu K, Liu WS, Zhu DY, *et al*. Effects of Qingkailing injection on post-transcatheter arterial chemoembolization syndrome in patients with primary liver cancer (in Chinese). J Guangzhou Univ Tradit Chin Med 2001;18(2):130–133. doi:10.3969/j.issn.1007-3213.2001.02.011.
[81] Zhang Y. Clinical efficacy of entecavir combined with Kangai injection in the treatment of HBV-related hepatocellular carcinoma after transcatheter arterial chemoembolization (in Chinese). Mod J Integr Tra-

dit Chin West Med 2015;24(30):3363–3365. doi:10.3969/j.issn.1008-8849.2015.30.021.
[82] Kang SL, Rao ZG, Yang B. Observation of Kang' Ai- injection on quality of life in patients with hepatocellular carcinoma after TACE (in Chinese). J Mod Oncol 2015;23(1):92–94. doi:10.3969/j.issn.1672-4992.2015.01.26.
[83] Wang LAA, Peng LS, Wei CS. Clinical observation on 30 cases of hepatitis B-related primary hepatocellular carcinoma after transcatheter arterial chemoembolization treated by compound Yexiazhu Granule combined with western medicine (in Chinese). J Tradit Chin Med 2017;58(22):1939–1942. doi:10.13288/j.11-2166/r.2017.22.011.
[84] Zhang LM, Li Xx, Tang RF, Su GX. Study on babaodan capsule in prevention and treatment of post-chemoembolization syndrome of hepatocellular carcinoma (in Chinese). J Hebei Tradit Chin Med Pharmacol 2018;33(1):26–28. doi:10.16370/j.cnki.13-1214/r.2018.01.008.
[85] Xu Y, Li W, Lou MZ, Xu C. Clinical study on babaodan capsules for postoperative syndrome in patients undergoing chemoembolization for primary hepatocellular carcinoma (in Chinese). J N Chin Med 2020;52(16):104–106. doi:10.13457/j.cnki.jncm.2020.16.029.
[86] Liu LN, Qiu XD, Zhang GJ, Huang ZM. Effect of Xihuang capsule on liver function and cellular immune function after TACE for hepatocellular carcinoma (in Chinese). Yunnan J Tradit Chin Med Mater Med 2022;43(7):46–49. doi:10.16254/j.cnki.53-1120/r.2022.07.014.
[87] Mi CF, Yu SY. Clinical analisis of Huaier Granule combined with CT-guided Iodine-125 (125 I) particles implantation for advanced hepatocellular carcinoma (in Chinese). Chin J Pract Med 2016;43(12):75–77. doi:10.3760/cma.j.issn.1674-4756.2016.12.031.
[88] Xiao ZY, Deng JH, Xiong SZ, Wang C, Tang XY. Three-dimensional conformal radiotherapy combined with Jinlong capsule in the treatment of 52 cases of primary liver cancer (in Chinese). Cap Med 2009;16(16):45–46.
[89] Du ZQ, Jiang LJ, Zhang ZC, Qin JY, Lu JS. Efficacy of argon-helium cryoablation combined with cinobufotalin and Shenmai injection in the treatment of advanced primary liver cancer (in Chinese). Guangdong Med J 2008;29(10):1666–1667. doi:10.13820/j.cnki.gdyx.2008.10.065.
[90] Zhang XY, Hu YH, Tang CG, Li YC, Shu Y, Qi ZZ, *et al*. Clinical research of stereotactic conformal body γ-knife and cinobufacini on patients with hepatocellular carcinoma (in Chinese). Chin J Clin Electron Ed 2011;5(7):1901–1905. doi:10.3877/cma.j.issn.1674-0785.2011.07.007.
[91] Jiao QS, Zeng BZ. Combination of cinobufotalin tablets and radioactive 125 I particle implantation on peripher-al blood T lymphocyte subsets after operation and serum CEA and AFP levels change in patients with advanced primary liver cancer (in Chinese). J Mod Oncol 2018;26(10):1565–1569. doi:10.3969/j.issn.1672-4992.2018.10.022.
[92] Kuang YH, Xu FB, Zhao Z, Liang JQ, Chen XJ. Meta-analysis and trial sequential analysis of effectiveness and safety of compound Banmao capsules combined with different chemoradiotherapy in the treatment of primary hepatic carcinoma (in Chinese). China Pharm 2021;32(8):996–1003. doi:10.6039/j.issn.1001-0408.2021.08.17.
[93] Zhang CZ, Wang JS. Clinical observation of primary liver cancer treated with aidi injection combined with little dose chemotherapy (in Chinese). J Basic Clin Oncol 2007;20(2):143–144. doi:10.3969/j.issn.1673-5412.2007.02.021.
[94] Yang SR, Wang R, Chai LX, Hua M, Ma MX, Han GX, *et al*. Clinical observation of Aidi injection combined with three-dimensional conformal radiotherapy for advanced primary liver cancer (in Chinese). Shaanxi J Tradit Chin Med 2017;38(11):1495–1496. doi:10.3969/j.issn.1000-7369.2017.11.003.
[95] Zhang DW, He J, Wu HJ, Zhang HG, Zhang QY, Ma YF, *et al*. Clinical effects of FP and Addie injection combined with 125 I seed implantation in treating advanced primary liver cancer (in Chinese). Hainan Med J 2016;27(23):3844–3847. doi:10.3969/j.issn.1003-6350.2016.23.019.
[96] Zhang BW, Feng SX, Li ZX, Wang XY, Wang Y, Wang XY, *et al*. Clinical analysis of compound Kushen injection combined with gamma knife in the treatment of primary liver cancer (in Chinese). Nei Mongol J Tradit Chin Med 2011;30(22):9–10,37. doi:10.16040/j.cnki.cn15-1101.2011.22.193.
[97] Jiang X, Gao GY, Wang W, Zhou XY, Gu RH, Shi HC, *et al*. Clinical study of compound Kushen injection combined with radioactive 125 I seed implantation in the treatment of primary liver cancer (in Chinese). Guizhou Med J 2017;41(1):39–41. doi:10.3969/j.issn.1000-744X.2017.01.015.
[98] Zhu YL, Yi FT. The effect of γ knife the combined application of Danshen injections on immune function in patients with primary liver cancer (in Chinese). Chin J Integr Tradit West Med Liver Dis 2020;30(2):111–113. doi:10.3969/j.issn.1005-0264.2020.02.005.
[99] Shao L, Shi YX, Zhu HX, Ma M, Niu TT, Li CT. Clinical study of stereotactic radiotherapy combined with Kanglaite injection in the treatment of primary liver cancer (in Chinese). Clin J Med Off 2017;45(3):313–315. doi:10.16680/j.1671-3826.2017.03.28.
[100] Zhang JZ, Zhang T, Gao X, Tao D, Liu YP, Huang Y, *et al*. Clinical research on dual-target alternating intensity modulated radiation therapy combined with Kanglaite for advanced diffused hepatocellular carcinoma (in Chinese). Mod J Integr Tradit Chin West Med 2019;28(3):242–246. doi:10.3969/j.issn.1008-8849.2019.03.
[101] Sun YH, Li WJ, Cui Y, Liu QY, Li J. Effect of Kanglaite injection on AFP-L3, AFP, GP73 and γ-GGT in patients with primary liver cancer (in Chinese). Mod J Integr Tradit Chin West Med 2020;29(6):618–620,673. doi:10.3969/j.issn.1008-8849.2020.06.012.
[102] Ke H, Li XN. The clinical study of iodine-125 seed implantation combined with disodium norcantharidate in the treatment of primary liver cancer (in Chinese). Chin J Surg Oncol 2016;8(3):173–176. doi:10.3969/j.issn.1674-4136.2016.03.008.
[103] Bai GD, Wu J. Clinical observation of Kangai injection combined with cyberknife in the treatment of 25 cases of primary liver cancer (in Chinese). J N Chin Med 2012;44(3):81–83. doi:10.13457/j.cnki.jncm.2012.03.084.
[104] Liu JM. Clinical observation of middle-late stage primary hepatic carcinoma patients treated by Disodium Cantharidinate and vitamin B6 injection combined Cyberknife therapy (in Chinese). J Mod Oncol 2015;23(3):392–394. doi:10.3969/j.issn.1672-4992.2015.03.30.
[105] Guo HYB, Huang W, Cao HM, Wang GL, Wu Y, Xu YC, *et al*. Clinical study of Pien Tze Huang combined with gamma knife surgery in treatment of hepatocellular carcinoma (in Chinese). Chin J Integr Tradit West Med Dig 2019;27(10):735–738,742. doi:10.3969/j.issn.1671-038X.2019.10.04.
[106] Wu GG, Zhao M. Observation on the effect of Kangai injection combined with chemotherapy in the treatment of advanced liver cancer (in Chinese). J Front Med 2020;10(5):135–136.
[107] Tang M. Effect of Kang' ai injection combined with chemotherapy on short-term efficacy, immune function and tumor markers in patients with primary liver carcinoma (in Chinese). Chin Foreign Med Res 2021;19(22):148–151. doi:10.14033/j.cnki.cfmr.2021.22.052.
[108] Fu XF, Yan Y, Guo HF. Effects of FOLFOX4 chemotherapy combined with Kang' ai injection on serum AFP, CEA and CA19-9 levels and immune function in patients with primary hepatic carcinoma (in Chinese). Med Innov China 2022;19(18):11–14. doi:10.3969/j.issn.1674-4985.2022.18.003.
[109] Tang HB. Effect of FOLFOX4 combined with Shenmai injection on the quality of life of patients with advanced liver cancer after operation (in Chinese). J Hepatobiliary Surg 2016;24(6):448–452. doi:10.3969/j.issn.1006-4761.2016.06.013.
[110] Yu ZH. Observation on the efficacy and side effects of thalidomide combined with Kanglaite injection in the treatment of primary liver cancer (in Chinese). J Clin Med Lit 2016;3(6):1143,1146. doi:10.16281/j.cnki.jocml.2016.06.111.
[111] Ye YJ, Lu XJ. Curative effect analysis of Kanglaite in the treatment of advanced liver cancer (in Chinese). Shaanxi Oncol Med 2000;8(4):241–242.
[112] Lyu YY, Zhong FZ, Zhang MY. Therapeutic effect of kanglaite injection combined with chemotherapy on liver cancer (in Chinese). Drug Eval 2019;16(16):54–55. doi:10.3969/j.issn.1672-2809.2019.16.027.
[113] Li Y, Zhao XM, Xu HL, Li J, Sun H. Clinical efficacy and influence of kanglaite combined with chemotherapy on the activity of immune cells in patients with liver cancer (in Chinese). Prog Mod Biomed 2014;14(11):2103–2106. doi:10.13241/j.cnki.pmb.2014.11.025.
[114] Li XY, Shi L, Cheng YH. Study on the therapeutic effect and immune system impact of Kanglaite injection combined with chemotherapy on liver cancer (in Chinese). Mod Digest Interv 2019(A02):2100–

2101.
[115] Ma WL, Yan YF, Wang XP. Efficacy of Kanglaite injection combined with chemotherapy for the treatment of hepatocellular carcinoma and its effect on immune system (in Chinese). Int J Immunol 2017;40(4):409–412. doi:10.3760/cma.j.issn.1673-4394.2017.04.013.
[116] Chen YL, Li PX. Clinical effect observation of complex sophorae injection combining with chemotherapy on treating liver cancer (in Chinese). J Tianjin Univ Tradit Chin Med 2006;25(3):166–167. doi:10.3969/j.issn.1673-9043.2006.03.020.
[117] Shi L. Clinical effect analysis of compound Sophora flavescens injection in GP regimen chemotherapy for advanced liver cancer (in Chinese). Chin J Mod Drug Appl 2011;5(21):64–65. doi:10.14164/j.cnki.cn11-5581/r.2011.21.119.
[118] Zhang XF, Zhou M. Treatment of 48 cases of primary liver cancer with compound Sophora flavescens injection as adjuvant chemotherapy (in Chinese). Henan Tradit Chin Med 2014;34(10):1929–1930. doi:10.16367/j.issn.1003-5028.2014.10.127.
[119] Tian YY. Study on the clinical effect of compound Sophora flavescens injection combined with chemotherapy on patients with primary liver cancer (in Chinese). Contemp Med Forum 2014;12(19):45–46.
[120] Yao LG. Clinical observation on the treatment of primary liver cancer with compound Kushen injection combined with chemotherapy (in Chinese). Liaoning J Tradit Chin Med 2015;42(11):2145–2146. doi:10.13192/j.issn.1000-1719.2015.11.036.
[121] He KQ. Application value of compound Kushen injection combined with chemotherapy in the treatment of primary liver cancer (in Chinese). Chin J Clin Ration Drug Use 2018;11(20):51–52. doi:10.15887/j.cnki.13-1389/r.2018.20.031.
[122] Zhang DW, He J, Zhang HG, Wang LL, Hao CH, Zhang YW, *et al*. Effects of compound Kushen injection in prevention and treatment of recurrence and metastasis of primary hepatic cellular carcinoma and the effect on serum P53 antibody, VEGF, TGF- β1 and Ki67 levels (in Chinese). World Chin Med 2018;13(3):601–604. doi:10.3969/j.issn.1673-7202.2018.03.013.
[123] Zheng WD, Zheng DH, Zheng WH. Clinical summarization of "cidan capsule" in treating 325 cases of primary liver cancer (in Chinese). Shanghai J Tradit Chin Med 2002;36(12):7–8. doi:10.16305/j.1007-1334.2002.12.003.
[124] Wang JX, Zhou CF, Zheng WD. Clinical effect of cidan capsule on patients with primary hepatocellular carcinoma (in Chinese). World J Integr Tradit West Med 2006;1(3):160–162. doi:10.3969/j.issn.1673-6613.2006.03.012.
[125] Xu X, Zheng WH, Zheng DH, Dong WJ. Clinical observation on the treatment of 150 cases of primary liver cancer with cidan capsules (in Chinese). In: 2011 China Famous Chinese Medicine Forum & Summit Forum on Prevention and Treatment of Cancer by Taking Advantages of Traditional Chinese and Western Medicine; 2011 Sep 9-11; Fuzhou, China. p. 204-207.
[126] Cheng HW, Luo ML, Jiang T, Qing L, Ran TB, He M. Effect of Aidi injection combined with FOLFOX4 chemotherapy in the treatment of primary liver cancer (in Chinese). J Mod Oncol 2012;20(4):777–779. doi:10.3969/j.issn.1672-4992.2012.04.37.
[127] Wang CZ. Clinical observation of Aidi injection combined with chemotherapy in the treatment of primary liver cancer (in Chinese). Mod Diagn Treat 2016;27(24):4634–4635. doi:10.3969/j.issn.1001-8174.2016.24.029.
[128] Hou CW, Zheng LM, Zhao L, Sun QC, Chen WS, Wang ZQ. Effects of aidi injection combined with 5-fluorouracil on T lymphocyte subsets in patients with primary hepatocellular carcinoma (in Chinese). Pract J Cancer 2017;32(11):1851–1854. doi:10.3969/j.issn.1001-5930.2017.11.033.
[129] Hou YL. Effect of Aidi injection combined with CAFI chemotherapy on KPS score and tumor disease control rate of patients with primary liver cancer (in Chinese). J N Pharm 2018;15(7):56–57. doi:10.3969/j.issn.1672-8351.2018.07.042.
[130] Zhang Q. Effect of aidi injection combined with XELOX chemotherapy on serum AFP and CEA levels in patients with primary hepatocellular carcinoma (in Chinese). Mod Diagn Treat 2018;4(21):3398–3400.
[131] Zhang MM. Effect of Aidi injection combined with XELOX chemotherapy regimen on serum VEGF and ICAM-1 levels in patients with primary liver cancer (in Chinese). Henan Med Res 2018;27(5):819–820.
[132] Yang BF. Therapeutic effect of aidi injection combined with HLF chemotherapy on liver cancer (in Chinese). World J Complex Med 2018;4(3):51–53. doi:10.11966/j.issn.2095-994X.2018.04.03.17.
[133] Han Y. Clinical effect of Aidi injection combined with XELOX chemotherapy in the treatment of advanced primary liver cancer (in Chinese). Henan Med Res 2020;29(8):1439–1440. doi:10.3969/j.issn.1004-437X.2020.08.047.
[134] Wang GQ, Li XX, Niu YL, Liu HY, Hao PP, Qin CH. Effect of Aidi injection combined with FOLFOX4 chemotherapy regimen in treating hepatocellular carcinoma and its influence on inflammatory factors and hydrogen sulphide in serum (in Chinese). China Med 2015;10(12):1775–1778. doi:10.3760/cma.j.issn.1673-4777.2015.12.013.
[135] Wu J, Shen HD. Pill of DaHuang ZheChongWan with chemotherapy in the treatment of primary carcinoma of liver at middle-advanced stage (in Chinese). West J Tradit Chin Med 2011;24(10):54–55. doi:10.3969/j.issn.1004-6852.2011.10.022.
[136] Zhou L. Clinical observation of Dahuangzhuchong pill combined with gemcitabine and oxaliplatin in the treatment of primary liver cancer (in Chinese). J N Chin Med 2014;46(2):161–163. doi:10.13457/j.cnki.jncm.2014.02.092.
[137] Yang JM, He YH, Ma BM. DaHuang ZheChong pills combined with chemotherapy in treating 35 cases of primary liver cancer (in Chinese). West J Tradit Chin Med 2018;4(10):83–85.
[138] Xia NX, Qiu BA, Wang JH, Liu P, Zhu JY, Zhao WC, *et al*. Chemotherapy combined with Huaier Granule in the prognosis of patients with recurrent/metastatic after primary hepatocellular carcinoma (in Chinese). Clin J Med Off 2017;45(9):887–890. doi:10.16680/j.1671-3826.2017.09.03.
[139] Zhu L, Huang Y. Clinical observation of Huaier Granule combined with improved FOLFOX regimen in the treatment of advanced liver cancer (in Chinese). Guide China Med 2017;15(3):188. doi:10.15912/j.cnki.gocm.2017.03.152.
[140] Liu GD, Xiao GL. Effects of Shengqi fuzheng injection combined chemotherapy on patients with primary liver cancer (in Chinese). Prog Mod Biomed 2010;10(7):1348–1350. doi:10.13241/j.cnki.pmb.2010.07.041.
[141] Han LJ, Zhang HX, Xu HJ, Chen XF, Wu XL. Effects of oxaliplatin and Shenqi fuzheng injection on serum levels of afp and GP73 in patients with primary liver cancer and its clinical efficacy (in Chinese). Prog Mod Biomed 2016;16(22):4289–4291,4366. doi:10.13241/j.cnki.pmb.2016.22.022.
[142] Tian SY, Xu AB, Huang HH, Shao BF, Zhou Y, Cai HY. Clinical observation of cinobufotalin combined with FOLFOX4 regimen in the treatment of 60 cases of advanced liver cancer (in Chinese). J China Prescr Drug 2016;14(11):72–73. doi:10.3969/j.issn.1671-945X.2016.11.053.
[143] Shu XH, Tan BX. Short-term efficacy of cinobufotalin combined with 5- fluorouracil in the treatment of advanced liver cancer (in Chinese). Sichuan J Cancer Contr 2004;17(2):88–89. doi:10.3969/j.issn.1674-0904.2004.02.010.
[144] Lai YQ, Jin Y, Chen YY. Clinical analysis of cinobufotalin combined with chemotherapy in the treatment of advanced liver cancer (in Chinese). Shaanxi Oncol Med 2002;10(3):217.
[145] Shao YX, Mao H. Effect of Brucea javanica oil soft capsule combined with XELOX chemotherapy on liver function and quality of life of patients with advanced liver cancer (in Chinese). J Med Theory Pract 2020;33(4):590–591. doi:10.19381/j.issn.1001-7585.2020.04.035.
[146] Peng WD. Clinical observation of compound mylabris capsule combined with chemotherapy in the treatment of advanced primary liver cancer (in Chinese). Guid J Tradit Chin Med Pharm 2011;17(10):39–40. doi:10.13862/j.cnki.cn43-1446/r.2011.10.059.
[147] Teng WF, Mao QQ, Yu DS, Li H. Clinical effects of Xiaozheng Yigan Tablet combined with mFOLFOX6 regimen in treatment of advanced primary liver cancer (in Chinese). Chin Arch Tradit Chin Med 2020;38(4):204–208. doi:10.13193/j.issn.1673-7717.2020.04.048.
[148] Tang YF, Zhu XJ, Huang LY, Zhang X, Zheng C, Gao YQ. Clinical study on Huaier Granules combined with sorafenib in treatment of advanced liver cancer (in Chinese). Drugs Clin 2018;33(7):1732–1735. doi:10.7501/j.issn.1674-5515.2018.07.039.
[149] Yang YS, Yang YL, Zhang M, Yu YM, Wang KF, Huang GQ. Clinical ob-

servation of Huachansu Capsule combined with sorafenib tosylate in the treatment of primary liver cancer with bone metastasis (in Chinese). Mod Med Health Res 2019;3(5):1–3,9.
[150] Feng LH, Chen YD, Zheng ZG, Gao YQ. Clinical observation of patients with primary liver cancer treated by sorafenib combined cinobufagin tablets (in Chinese). China Oncol 2012;22(11):856–859. doi:10.3969/j.issn.1007-3969.2012.11.010.
[151] Wang YD, Ding HB, Huang ZC, Zhu JX, Guo JM. Short-term efficacy observation of intravenous administration of cinobufalin combined with lenvastinib in the treatment of primary liver cancer patients after TACE (in Chinese). J Clin Res 2022;8(1):9–12. doi:10.3969/j.issn.1671-7171.2022.01.003.
[152] Lu Y, Qi Y. Clinical efficacy and liver function analysis of elemene injection combined with sorafenib in the treatment of liver cancer patients (in Chinese). J Med Theory Pract 2019;32(20):3292–3293. doi:10.19381/j.issn.1001-7585.2019.20.037.
[153] Sun J, Zhang F. Effect of elemene injection combined with molecular targeting drugs on immunity and survival status of patients with liver cancer metastasis (in Chinese). Chin J Integr Tradit West Med Liver Dis 2022;32(1):16–19. doi:10.3969/j.issn.1005-0264.2022.01.004.
[154] Wei J, Ni LG, Chen XM, Wang R. Study on the curative effect of Jieduhuoxue Decoction combined with spleen polypeptide injection and apatinib in the treatment of advanced liver cancer (in Chinese). Chin J Integr Tradit West Med Liver Dis 2021;31(9):803–805. doi:10.3969/j.issn.1005-0264.2021.09.009.
[155] Hao WJ. Effect of adjuvant therapy of Shenqi fuzheng injection on the clinical efficacy and immune function of patients with advanced primary liver cancer (in Chinese). China J Pharm Econ 2020;15(8):71–73,78. doi:10.12010/j.issn.1673-5846.2020.08.016.
[156] Liu DM, Zhang J, Zhang BB, Ma YE, Li XF. Effect of Shenqi fuzheng injection combined with sorafenib on advanced primary liver cancer and its effect on VEGF, TNF-α and IFN-γ levels in patients (in Chinese). Prog Mod Biomed 2019;19(22):4287–4290,4334. doi:10.13241/j.cnki.pmb.2019.22.018.
[157] Lu XY, Hua GD, Bai J, Tian XL, Liu C, Li YH. Effect of Shenqi Fuzheng injection combined with sorafenib on miR-103, CXCR3 and AFP in postoperative patients with liver cancer (in Chinese). Chin J Integr Tradit West Med Liver Dis 2020;30(3):218–220,230,290. doi:10.3969/j.issn.1005-0264.2020.03.009.
[158] Wang PP. Systematic review and reticular meta-analysis of traditional Chinese medicine injection combined Meta cisplatin intraperitoneal perfusion in the treatment of cancerous ascites [Dissertation] (in Chinese). Beijing: Beijing University of Chinese Medicine; 2020. doi:10.26973/d.cnki.gbjzu.2020.000328.
[159] Chen ZC. Clinical effect of Kangai injection combined with chemotherapy in the treatment of cancer-related fatigue of hepatocellular carcinoma patients (in Chinese). Int J Transplant Hemopurification 2017;15(6):39–41. doi:10.3760/cma.j.issn.1673-4238.2017.06.010.
[160] Wang XT, Zhang CL, Chen XQ, Ji AY, Chen XJ. Efficacy of cinobufotalin for the treatment of primary liver cancer-related pain (in Chinese). Health Med Res Pract 2018;15(6):36–39. doi:10.11986/j.issn.1673-873X.2018.06.009.
[161] Xiao MZ, Jiang MH, Shao DS. The clinical application of external therapy of traditional Chinese medicine in patients with advanced liver cancer (in Chinese). In: 2014 Academic Symposium on Integrated Traditional and Western Medicine for Prevention and Treatment of Liver Disease and Liver Cancer; 2014 Aug 30-Sep 1; Suzhou, China. p. 285-287.
[162] Huang XX, Zhou CJ, Lin LJ, Wei L, Cai BQ, Wang MX. Effect of Dahuang Fuzi Xixin Decoction Enema on gastrointestinal dysfunction after laparoscopic hepatocellular carcinoma (in Chinese). Chin J Surg Integr Tradit West Med 2022;28(4):456–459. doi:10.3969/j.issn.1007-6948.2022.04.004.
[163] Chen Y, Wang Y, Deng RB, Wu QW. Observation on therapeutic effect of colon dialysis sequential enema with traditional Chinese medicine on early postoperative inflammatory intestinal obstruction of primary liver cancer (in Chinese). J Sichuan Tradit Chin Med 2017;35(8):161–163.
[164] Huang CQ, Liao LL, Teng YJ, Mo XS. Observation on the effect of Zusanli acupoint application combined with auricular point pressing in the treatment of abdominal distension after primary liver cancer surgery (in Chinese). Diet Health 2018;5(6):97–98. doi:10.3969/j.issn.2095-8439.2018.06.120.
[165] Pang ZF, Yan XN. The effect of Zusanli acupoint application combined with auricular point pressing on reducing the degree of abdominal distension after liver cancer surgery (in Chinese). Chin Health Care 2020;6(12):112–113.
[166] Lyu F, Fu XP, Liu XM, Qiu HJ. Clinical observation on Zusanli acupoint application combined with auricular point pressing in the treatment of abdominal distension after primary liver cancer operation (in Chinese). Guangming J Chin Med 2021;36(14):2303–2305. doi:10.3969/j.issn.1003-8914.2021.14.011.
[167] Yao XY, Fan BF. Analysis of the effect of Zusanli acupoint application combined with auricular point pressing beans on improving abdominal distension after primary liver cancer surgery (in Chinese). Health Required 2021;29:252.
[168] Pang ZF. Effect of acupoint application on nausea, vomiting and quality of life of patients with liver cancer after operation based on the concept of rapid rehabilitation (in Chinese). Int J Nurs 2022;41(11):2064–2068. doi:10.3760/cma.j.cn221370-20201230-00532.
[169] Zhang SK, Gao WB, Liu Y, He H. Therapeutic effect of cervical Jiaji electroacupuncture on postoperative intractable hiccup of liver neoplasms (in Chinese). Chin J Oncol 2018;40(2):138–140. doi:10.3760/cma.j.issn.0253-3766.2018.02.011.
[170] Yang DJ. The Clinical Study of Auricular Point Pressing Therapy on Patients with Sleep Disorder after Laparoscopic Primary Hepatocel Lular Carcinoma Resection [Dissertation] (in Chinese). Guangzhou: Guangzhou University of Chinese Medicine; 2020. doi:10.27044/d.cnki.ggzzu.2020.000357.
[171] Liu LL, Xia M, Lei YC, Li JW, Cheng S, Cai Y, *et al*. Study on auricular seeds taping therapy intervening sleep disorder in patients with primary liver cancer (in Chinese). J Guangxi Univ Nat Sci Ed 2020;45(3):717–722. doi:10.13624/j.cnki.issn.1001-7445.2020.0717.
[172] Xie J, Chen LH, Ning ZY, Zhang CY, Chen H, Chen Z, *et al*. Effect of transcutaneous electrical acupoint stimulation combined with palonosetron on chemotherapy-induced nausea and vomiting: a single-blind, randomized, controlled trial. Chin J Cancer 2017;36(1):6. doi:10.1186/s40880-016-0176-1, PMID:28069044.
[173] Du TF. Observation of the Clinical Effect of Treating Primaryliver Cancer with Ascites by Shipixiaoshui Cream Formula External Application [Dissertation] (in Chinese). Urumqi: Xinjiang Medical University; 2017.
[174] Zhao B, Liu YC. Observation on therapeutic effect of mirabilite external application on ascites due to liver cancer (in Chinese). J Pract Tradit Chin Med 2014;30(4):330. doi:10.3969/j.issn.1004-2814.2014.04.058.
[175] Xiong YH, Liu WQ. 25 cases of abdominal effusion treated by external application of Xingqi Lishui ointment combined with hyperthermia (in Chinese). Zhejiang J Tradit Chin Med 2013;48(8):563. doi:10.3969/j.issn.0411-8421.2013.08.012.
[176] Yan YC. Randomized controlled clinical study on moxibustion intervention in moderate and severe cancer-related fatigue in patients with liver cancer [Dissertation] (in Chinese). Shanghai: Shanghai University of Traditional Chinese Medicine; 2016.
[177] Zhang K, Han Q, Zhao LN. Effect of moxibustion on quality of life in patients with advanced liver cancer (in Chinese). Healthmust-Readmagazine 2021;2:174.
[178] Yu WF, Shen HJ. Curative effect observation and nursing experience on acupoint application of Chinese herbs for liver cancer pain (in Chinese). J N Chin Med 2018;50(12):245–248. doi:10.13457/j.cnki.jncm.2018.12.073.
[179] Zhou DQ, Zhou TH, Wang X, He B. Observation on therapeutic effect of acupoint application of Aitong plaster on cancer pain of primary liver cancer (in Chinese). J Front Med 2016;6(11):325–326.
[180] You Y. Effects of acupoint application of traditional Chinese medicine combined with Morphine on pain and adverse reactions in patients with advanced liver cancer (in Chinese). Med J Chin People's Health 2021;33(2):83–85. doi:10.3969/j.issn.1672-0369.2021.02.032.
[181] Gen JY. Observation and experience of curative effect of acupoint application of traditional chinese medicine on liver cancer pain (in Chinese). World Latest Med Inf 2021;21(16):277–278. doi:10.3969/j.

issn.1671-3141.2021.16.136.
[182] Zhang YY. Analysis of the intervention effect of acupoint application of traditional Chinese medicine on pain in patients with primary liver cancer (in Chinese). J Clin Nursing's Pract 2017;2(18):128,134. doi:10.3969/j.issn.2096-2479.2017.18.098.
[183] Li Q. Observation on therapeutic effect of acupoint application on pain of advanced liver cancer (in Chinese). Shanxi J Tradit Chin Med 2015;31(3):45,57.
[184] Wang LL. Systematic evaluation of the clinical efficacy of external application of chinese medicine to treat primary liver cancer pain [Dissertation] (in Chinese). Jinan: Shandong University of Traditional Chinese Medicine; 2020. doi:10.27282/d.cnki.gsdzu.2020.000375.
[185] Zhang XW, Gu YJ, Wu HG, Li KS, Zhong R, Qi Q, *et al*. Systematic Review and Meta-Analysis of Acupuncture for Pain Caused by Liver Cancer (in Chinese). World J Tradit Chin Med 2022;8(3):402–412. doi:10.4103/2311-8571.351510.
[186] Liu LX. The curative effect of thermal moxibustion in the adjuvant treatment of moderate liver cancer pain and its effect on TNF-α and IL-2 (in Chinese). Shanghai J Acupunct Moxib 2020;39(6):692–696. doi:10.13460/j.issn.1005-0957.2020.06.0692.
[187] Xu L, Bao JF, Yu HY, Ji Q. Effect of auricular point pressure bean on perioperative pain and anxiety in patients with liver cancer undergoing interventional therapy (in Chinese). China Mod Dr 2018;56(33):98–101.
[188] Xin CC, Li SH, Wang M, Wang XL, Zhao YF, Yang LJ. Analysis of influencing factors on hope level and spiritual health of patients with liver cancer (in Chinese). J Qilu Nurs 2022;28(12):52–55. doi:10.3969/j.issn.1006-7256.2022.12.017.
[189] Hematology Branch of Chinese Association of Chinese Medicine. Experts consensus on TCM diagnosis and treatment for tumor related depressive status (in Chinese). China J Tradit Chin Med Pharm 2015;30(12):4397–4399.
[190] Xiao J, Wang J, Niu Y. Effect of emotional conditioning combined with Baduanjin in patients with liver cancer treated with chemotherapy (in Chinese). Henan Med Res 2023;32(15):2850–2854.
[191] Wang YZ. Diet strategy for patients with liver cancer (in Chinese). Food Health 2023;35(4):18–20.
[192] Campbell KL, Winters-Stone KM, Wiskemann J, May AM, Schwartz AL, Courneya KS, *et al*. Exercise Guidelines for Cancer Survivors: Consensus Statement from International Multidisciplinary Roundtable. Med Sci Sports Exerc 2019;51(11):2375–2390. doi:10.1249/MSS.0000000000002116, PMID:31626055.
[193] Yu KT, Jia J. Hepatocellular carcinoma related guidelines and expert consensus interpretation from the perspective of full cycle rehabilitation (in Chinese). Chin J Med 2022;57(1):18–21. doi:10.3969/j.issn.1008-1070.2022.01.006.
[194] Chinese Society of Hepatology, Chinese Medical Association. The consensus on tertiary prevention of primary liver cancer (2022 version) (in Chinese). Chin J Hepatol 2022;30(8):832–845. doi:10.3760/cma.j.cn501113-20220616-00330.
[195] Prevention of Infection Related Cancer (PIRCA) Group, Chinese Preventive Medicine Association. Strategies of primary prevention of liver cancer in China: Expert Consensus (2018) (in Chinese). J Clin Hepatol 2018;34(10):2090–2097. doi:10.3969/j.issn.1001-5256.2018.10.008.
[196] Chinese Society of Hepatology, Chinese Medical Association. The consensus of secondary prevention for primary liver cancer (2021 version) (in Chinese). J Clin Hepatol 2021;37(3):532–542. doi:10.3969/j.issn.1001-5256.2021.03.008.

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