

Exploring Cervical Cancer Treatment Approaches Based on Spleen-Kidney Differentiation Through the Theory of “Cold Qi Generating Turbidity”

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Abstract: *Cervical cancer, a common gynecological malignancy, exhibits a rising incidence rate. Modern Western medical treatments not only carry side effects but also face high recurrence rates. This paper, grounded in the traditional Chinese medicine theory of “cold qi generating turbidity,” analyzes classical texts and modern medical experience. Integrating both Chinese and Western pathological understandings of cervical cancer, it explores the role of spleen-kidney yang deficiency and accumulated turbid pathogens in the disease’s pathogenesis. Research indicates that insufficiency of spleen-kidney yang qi disrupts qi and blood transformation, depriving the uterus of warmth and nourishment. This allows cold qi to congeal with turbid pathogens like damp phlegm and blood stasis, ultimately forming cancer toxins. Therapeutic approaches emphasize warming and tonifying the spleen and kidney, resolving turbidity, and detoxifying. Modified classical formulas combined with insect-derived herbs are used to clear uterine stasis. Clinical cases demonstrate this approach improves symptoms and delays disease progression. This study suggests the “cold generates turbidity” theory offers a new direction for TCM diagnosis and treatment of cervical cancer. By integrating traditional theory with modern pathological mechanisms, it provides valuable reference for enhancing clinical efficacy.*

Keywords: Cold-Induced Turbidity, Cervical Cancer, Spleen-Kidney Yang Deficiency, Turbidity Pathogen Theory, Warming Yang to Resolve Turbidity.

1. The Theory of “Cold-Induced Turbidity”

1.1 Theoretical Essence of “Cold Qi Generates Turbidity”

The theory of “cold qi generating turbidity” traces its origins to the Huangdi Neijing (The Yellow Emperor’s Inner Canon). The Suwen: Great Treatise on Yin-Yang Correspondence explicitly states, “Cold qi generates turbidity, while heat qi generates clarity,” positing that invasion by cold pathogens obstructs qi movement, leading to the accumulation of metabolic byproducts that form turbid pathogens [1]. Han Dynasty physician Zhang Zhongjing further developed this theory in the Essential Prescriptions from the Golden Cabinet, noting that cold pathogens entering the interior can cause “water retention and phlegm-dampness accumulation,” linking turbid pathogens to gynecological disorders [2]. During the Jin-Yuan period, Li Dongyuan emphasized the role of spleen-stomach yang qi in transforming turbid pathogens, proposing that “when spleen yang fails to function, damp-turbidity arises internally.” Zhu Danxi supplemented this from the liver-kidney perspective, stating that “when the fire of the gate of life declines, cold-turbidity descends to the uterus” [3]. During the Ming and Qing dynasties, physicians like Zhang Jingyue systematically summarized the pathogenic characteristics of turbid pathogens in his Jingyue Quanshu, noting that “turbid pathogens are viscous and sticky, easily obstructing qi and blood,” with disease locations predominantly concentrated in the lower jiao [4]. Although historical physicians differed on the pathways of turbidity pathogen generation, they generally acknowledged the association between cold pathogens, yang deficiency, and turbidity accumulation. For instance, Medical Canon of the Golden Mirror records, “Yang deficiency leads to cold; when cold prevails, turbidity coagulates.” Modern research has also identified correlations between yang-deficient constitutions and the local inflammatory microenvironment of the cervix

[5,6]. Additionally, Ye Tianshi proposed the pathological progression of “turbid pathogens transforming into heat,” suggesting that prolonged stagnation of cold-turbid pathogens can lead to stagnation and subsequent heat transformation. This concept shares similarities with modern medical mechanisms where chronic inflammation promotes tumor progression [7,8].

1.2 Extensions of the “Cold Generates Turbidity” Theory

Contemporary practitioners have applied the “cold qi generates turbidity” theory to treat various conditions, including gynecological tumors and chronic inflammation. Zhan Libin identified the pathomechanism of turbid pathogens coagulating in the uterus during gynecological malignancy treatment, emphasizing the role of warming yang and transforming turbidity in enhancing immune function in cervical cancer patients [9]. Clinical cases demonstrated that combining aconite with poria reduced tumor marker levels [7]. Li Tong incorporated turmeric and patchouli—substances that resolve turbidity—into Guizhi Fuling Pill for cervical cancer treatment, discovering it effectively suppressed HPV viral load [10,11]. This aligns with the understanding that turbid pathogenic factors obstructing circulation deteriorate the local cervical microenvironment. Research indicates that turbid pathogens possess viscous and heavy characteristics, intertwining with dampness, phlegm, and stasis to form “turbid-toxin complexes.” For instance, HPV-induced cervical lesions often accompany abnormal vaginal discharge and tissue necrosis, aligning with Traditional Chinese Medicine’s pathological progression of “dampness transforming into turbidity and toxin” [4,12]. Modern experiments indicate that turbid pathogenic factors accumulation can activate inflammatory mediators like IL-6 and promote tumor angiogenesis [13], providing evidence for how the warming yang and resolving turbidity method

inhibits cervical cancer progression by regulating the STAT3 pathway [14]. Clinical studies of Compound Mylabris Capsules demonstrate its ability to reduce serum CYFRA21-1 levels [15], validating the efficacy of the “removing turbidity and detoxifying” approach in enhancing chemotherapy efficacy and reducing toxicity in cervical cancer [16]. The turbidity pathogen theory posits that dampness, phlegm, and stasis represent different manifestations of turbidity pathogens. Clinical observations reveal a correlation between thick, greasy tongue coating in cervical cancer patients and pelvic lymph node metastasis [17], suggesting a close relationship between the severity of turbidity pathogens and disease progression. Cui Yingmin’s treatment regimen for high-risk HPV infection combining *Smilax glabra* with Coix seed [3] embodies a therapeutic approach emphasizing both dampness-resolving detoxification and turbidity-transforming. Its mechanism may involve regulating tumor cell autophagy [18]. Modern pharmacology confirms that volatile oil components in turbidity-resolving herbs like *Atractylodes lancea* exhibit antitumor activity [19], aligning with the theory that turbid pathogenic factors impair cellular energy metabolism [5]. Clinical observations show that kidney-tonifying and spleen-strengthening formulas alleviate radiation enteritis symptoms in cervical cancer patients [20], indicating that fortifying the body’s defenses while expelling turbidity exerts bidirectional regulation on the tumor microenvironment.

2. Understanding Cervical Cancer in Traditional and Western Medicine

2.1 Traditional Chinese Medicine’s Perspective on Cervical Cancer

Although traditional Chinese medical theory does not directly name cervical cancer, its clinical manifestations—such as abnormal vaginal bleeding, foul-smelling vaginal discharge, and abdominal masses—allow it to be categorized under conditions like “metrorrhagia” and “leucorrhea disorders.” From a pathological location perspective, the uterus (*cangong*) serves as the convergence point of the Chong and Ren meridians and maintains close relationships with the spleen and kidney organs. Spleen deficiency impairs the transformation and transportation of fluids, while kidney yang deficiency disrupts qi transformation, collectively leading to the internal generation of turbid pathogenic factors. Modern physician Zhan Libin proposed that gynecological tumors often result from the combined effects of deficient vital energy and accumulated pathogenic toxins [9]. Liu Sheng, based on the theory that “blood stagnation transforms into water,” emphasized the connection between impaired qi and blood circulation and the generation of cancer toxins [21]. This aligns with the pathogenesis described in the Golden Cabinet Essential Prescriptions: “For all abdominal pain and disorders in women, the Danguishi Powder is the primary treatment,” which characterizes uterine disorders. [1]. Clinical observations reveal that cervical cancer patients often present with yang deficiency symptoms such as cold soreness in the lower back and knees, and dark menstrual blood with clots. Cui Yingmin observed that patients with spleen-kidney yang deficiency constitution are more prone to cervical lesions when treated for high-risk HPV infection [3], which resonates with the pathological process described in Suwen:

“Cold qi lodges in the uterine orifice” leading to “stagnant blood that should be expelled but remains.” Current research indicates that impaired qi transformation due to spleen-kidney yang deficiency may diminish immune surveillance. Compound Mylabris Capsules improve the CD4+/CD8+ ratio in cervical cancer patients by warming and tonifying kidney yang [7]. Experimental results showing Guizhi Fuling Pill modulates the STAT3 pathway to inhibit cervical cancer cell proliferation further validate the scientific basis of the warming yang and transforming turbidity approach [22]. Based on classical texts and modern clinical practice, spleen-kidney yang deficiency is considered to impair the warming and nourishing function of the uterus, creating a pathological foundation for the accumulation of turbid pathogens like dampness and blood stasis. Li Tong observed that patients with yang deficiency exhibited greater sensitivity to insect-based medicines for resolving turbidity and detoxification when treated with modified Guizhi Fuling Pill for cervical cancer [10]. This suggests that the retention of turbid pathogens due to spleen-kidney yang deficiency may be a critical factor in the development and progression of cervical cancer.

2.2 Western Medical Understanding of Cervical Cancer

The development of cervical cancer is associated with multiple pathological mechanisms. Research indicates that persistent human papillomavirus (HPV) infection is the primary causative factor. The viral proteins E6 and E7 suppress the host tumor suppressor genes p53 and Rb, leading to uncontrolled cell cycle progression and abnormal proliferation [8]. During this process, chronic inflammation persists, with inflammatory factors like IL-6 and TNF- α promoting tumor microenvironment formation and accelerating cancer cell invasion and metastasis [6]. Oxidative stress is also prevalent, as mitochondrial dysfunction leads to excessive reactive oxygen species (ROS) accumulation, directly damaging DNA and activating carcinogenic signaling pathways [5]. Regarding cell death mechanisms, the balance between autophagy and apoptosis is disrupted. For instance, studies show that icariin inhibits autophagy-related protein expression in cervical cancer cells while enhancing apoptotic effects by regulating miRNAs [18]. Gut microbiota dysbiosis has been linked to cervical cancer progression, with metabolites from specific bacterial strains potentially affecting reproductive system immunity via the bloodstream and exacerbating local inflammation [23]. Notably, metabolic reprogramming in cancer cells is a key feature, where abnormal expression of tricarboxylic acid cycle-related genes disrupts energy metabolism, potentially offering new therapeutic targets. [23]. Notably, metabolic reprogramming in cancer cells is a key feature, with abnormal expression of tricarboxylic acid cycle-related genes leading to energy metabolism disorders, which may represent novel therapeutic targets. At the molecular level, abnormal activation of the epidermal growth factor (EGF) signaling pathway promotes angiogenesis and tumor invasion; relevant inhibitors have demonstrated efficacy in animal studies [24]. In advanced disease stages, reduced mitochondrial membrane potential triggers apoptosis through cytochrome C release, yet some cancer cells evade death by upregulating anti-apoptotic proteins [25]. These pathological processes intertwine to form complex pathogenic networks—for instance, ROS

simultaneously induce DNA mutations and activate the NF- κ B pathway to amplify inflammation, creating a vicious cycle [8]. Clinical testing reveals abnormally elevated serum levels of the cytokeratin CYFRA21-1 in cervical cancer patients, with concentration changes correlating with chemotherapy efficacy [15]. Therapeutic strategies targeting these mechanisms are currently under exploration. For instance, compound cantharidin capsules combined with chemotherapy effectively modulate tumor marker levels, potentially through regulating apoptosis pathways [16].

3. Exploring Cervical Cancer Pathogenesis Based on the “Cold-Induced Turbidity” Theory

3.1 Association Between “Cold-Induced Turbidity” and Cervical Cancer

From a Western medical perspective, the inflammatory microenvironment and immune imbalance drive tumor progression. In traditional Chinese medicine, spleen-kidney yang deficiency triggers a series of pathological changes that create a pro-cancerous environment. Therapeutic approaches such as warming-yang-and-resolving-turbidity Chinese herbs, compound cantharidin capsules, and kidney-tonifying herbs target different pathological stages. Combining kidney-warming and spleen-strengthening methods with chemotherapy improves patient outcomes, demonstrating the synergistic role of integrated Chinese and Western medicine in cervical cancer research and tModern medical research indicates that the development of cervical cancer is closely associated with an inflammatory microenvironment and immune imbalance. Cervical cancer tissues exhibit abnormal expression of numerous inflammatory cytokines such as IL-6 and TNF- α , which promote tumor cell proliferation while suppressing immune cell function [26]. This decline in immune function parallels the state of “compromised defensive barrier” caused by spleen-kidney yang deficiency in traditional Chinese medicine theory. As the root of yang qi in the human body, impaired spleen-kidney function weakens the capacity for “qi transformation,” preventing the normal excretion of metabolic byproducts, which then transform into turbid pathogens [9]. Clinical observations reveal that cervical cancer patients often present with spleen-kidney yang deficiency symptoms such as soreness in the lower back and knees, aversion to cold, and cold extremities. This corresponds to the description of “deficiency-labor with abdominal urgency” in the Golden Cabinet Essential Prescriptions [1]. When spleen-kidney yang deficiency disrupts qi circulation, blood and qi flow to the uterus becomes obstructed, allowing turbid pathogens to accumulate and form pathological products. This closely parallels Western medicine’s description of inflammatory mediators accumulating in the tumor microenvironment to create a pro-cancerous setting [6]. Modern pharmacological studies confirm that Chinese herbs with warming and turbidity-resolving properties, such as Aconite and Cinnamon, can modulate tumor-associated macrophage polarization and inhibit pro-inflammatory factor release [16,19]. For instance, Compound Mylbris Capsules improve immune function by modulating Th1/Th2 cell balance while simultaneously reducing serum VEGF levels [27]. This dual regulatory effect precisely corresponds to the TCM therapeutic principle of

“strengthening the healthy qi and expelling pathogenic factors.” From a pathomechanical perspective, spleen yang deficiency impairs water-dampness transformation, while kidney yang deficiency weakens qi transformation. Their combined action creates a vicious cycle of “cold stagnation—turbidity accumulation—toxin formation,” ultimately triggering abnormal proliferation of cervical epithelial cells [12,28]. This pathological process intersects with the abnormal cell cycle regulation caused by persistent HPV infection. Experimental evidence confirms that kidney-tonifying Chinese herbs can inhibit viral replication by regulating E6/E7 oncoprotein expression [11]. Clinically, combining kidney-warming and spleen-strengthening methods with chemotherapy reduces the incidence of radiation enteritis and improves patient quality of life [20,29], demonstrating the practical significance of regulating spleen and kidney functions in reversing the “cold-induced turbidity” pathogenesis.

The convergence of TCM and Western medical theories regarding cervical cancer pathogenesis, symptomatology, drug mechanisms, disease progression, and clinical management demonstrates their interconnectedness and complementarity in cervical cancer research, providing a theoretical foundation for integrated TCM-Western approaches to treatment.

3.2 Key Pathogenesis of Cervical Cancer: Deficient Spleen-Kidney Yang, Impaired Qi Transformation, Uterine Malnutrition, Impaired Qi Movement, Uterine Turbidity and Stasis, and Transformation into Cancerous Pathogens

3.2.1 Deficient Spleen-Kidney Yang, Impaired Transformation of Qi, Blood, and Body Fluids, and Malnourishment of the Uterus

The relationship between deficient spleen-kidney yang and cervical cancer holds significant importance in TCM theory. The Huangdi Neijing states, “Yang qi is like heaven and the sun,” emphasizing the fundamental role of spleen-kidney yang in human vital activities. Factors such as prolonged exposure to wind-cold pathogens or emotional imbalances readily damage spleen-kidney yang. Clinical observations reveal that cervical cancer patients often present with yang deficiency symptoms like aversion to cold, cold limbs, and a pale tongue with white coating [28]. When spleen-kidney yang is deficient, the transformation and transportation of qi, blood, and body fluids become impaired. Nutrient essences from food and drink cannot be properly distributed, gradually forming turbid pathogenic factors. This pathological process is described in the Golden Cabinet Essentials as “blood stagnation leads to fluid retention.” Damp-turbid pathogenic factors become trapped in the uterus, potentially triggering abnormal tissue proliferation. Modern research indicates elevated levels of inflammatory cytokines IL-6 and TNF- α in patients with spleen-kidney yang deficiency, corresponding to the Western pathological mechanism of inflammatory mediator accumulation in the cervical cancer microenvironment. In clinical practice, combining spleen-kidney warming formulas like Guizhi Fuling Pill with chemotherapy reduces serum tumor markers such as CEA and SCC-Ag by approximately 30% [10], demonstrating that

regulating yang qi positively influences disease progression control. Impaired qi and blood circulation also alters the cellular microenvironment. Experimental evidence confirms that Bu Zhong Yi Qi Tang enhances immune function by regulating T lymphocyte subset ratios [30], aligning with Western medical approaches using thymalfasin to modulate immunity [31]. From a molecular mechanism perspective, impaired mitochondrial function under spleen-kidney yang deficiency may accelerate cervical cancer cell resistance to apoptosis. Components in Kidney-Nourishing and Stasis-Resolving Decoction can inhibit HPV E6/E7 protein expression [14], offering a new perspective for integrated Chinese-Western medicine treatment. It is crucial to emphasize that turbid pathogens function both as pathological byproducts and pathogenic factors. Clinically, dampness-resolving and toxin-eliminating agents like Compound Kushen Injection reduce serum VEGF levels by 42.6% in cervical cancer patients [27], validating the therapeutic principle of “resolving turbidity to promote regeneration.” Collectively, these studies indicate that spleen-kidney yang deficiency-induced impairment of qi, blood, and body fluid transformation constitutes a core pathway in cervical cancer pathogenesis.

3.2.2 Impaired Qi Movement, Turbid Pathogenic Factors Obstructing the Uterus, and Transformation into Cancerous Toxins

In traditional Chinese medicine theory, spleen-kidney yang deficiency is considered a major cause of impaired qi circulation. The Golden Cabinet Essential Prescriptions states, “Yang deficiency leads to cold; cold leads to qi stagnation,” indicating that insufficient yang qi disrupts the flow of qi and blood. Modern research has found that diminished spleen-kidney function causes accumulation of cellular metabolic byproducts, which correlates with elevated levels of inflammatory factors like IL-8 and TNF- α in cervical cancer patients [32,33]. When qi circulation is obstructed, bodily fluids that should flow freely condense into phlegm-dampness, while stagnant blood forms stasis. The combination of these two pathologies creates turbid pathogenic factors. This pathological state readily accumulates in the uterus, much like silt clogging a water pipe and gradually corroding its walls. Prolonged retention of turbid pathogenic factors damages the cervical tissue microenvironment. Clinical observations indicate that warming and turbidity-resolving medications like Yishen Huayu Decoction alleviate symptoms such as low back pain and abnormal vaginal discharge in cervical cancer patients, potentially through STAT3 signaling pathway regulation [14,31]. The ancient text Huangdi Neijing (The Yellow Emperor’s Inner Canon) refers to turbid pathogens as “pathogens of accumulation,” emphasizing their viscous and adhesive properties. Modern medicine has discovered that persistent HPV infection is closely associated with abnormal proliferation of cervical epithelial cells. The traditional Chinese medicine compound Banmao Capsules demonstrates dual effects of detoxification and turbidity resolution by inhibiting HPV replication while regulating the ratio of CD4+ and CD8+ lymphocytes. During disease progression, turbid pathogens not only obstruct nutrient transport but also stimulate abnormal vascular proliferation in the tumor microenvironment, promoting cancer cell metastasis [13,24].

For instance, animal studies demonstrate that Guizhi Fuling Pill inhibits ovarian cancer cell proliferation by regulating the Caspase-4 pathway, a mechanism analogous to resolving uterine stasis [22,34]. Therapeutic interventions often employ spleen-tonifying and dampness-resolving herbs like *Atractylodes* and *Poria*. These not only alleviate spleen deficiency symptoms such as abdominal distension and poor appetite but also reduce serum levels of tumor markers like CYFRA21-1 [15]. When turbid pathogens combine with cancer toxins, simple warming and tonifying formulas prove inadequate. Formulations must incorporate insect-derived herbs like whole scorpion and centipede to penetrate the collaterals and thoroughly eliminate pathogenic toxins. Research indicates these herbs can induce apoptosis in HeLa cells, with target mechanisms involving MDM4 gene regulation [18,25]. This dual therapeutic approach of warming yang and resolving turbidity simultaneously restores spleen-kidney transport and transformation functions while directly eliminating pathological products, offering novel insights for cervical cancer treatment.

4. Diagnosis and Treatment of Cervical Cancer Based on the “Cold-Induced Turbidity” Theory

4.1 Nurturing Vitality with Gentle Fire, Warming and Unblocking Yang Qi, and Protecting Spleen and Kidney

The pathogenesis of cervical cancer primarily involves spleen-kidney yang deficiency and cold-induced turbidity. Traditional Chinese medicine posits that the spleen and kidney are vital organs for generating yang qi. Insufficient spleen-kidney yang qi disrupts the transformation of qi, blood, and body fluids, leading to the formation of cold-damp turbid pathogens. Prolonged stagnation of these pathological products in the uterus may trigger the accumulation of cancer toxins [35]. The classical medical text Huangdi Neijing states that “gentle fire generates vitality,” indicating that mild yang energy promotes life functions, while excessive cold pathogens damage organ functions. Modern research shows that patients with spleen-kidney yang deficiency often exhibit impaired immune function, consistent with the immune suppression observed in cervical cancer development [26]. Treatment should focus on warming and tonifying the spleen and kidneys while dispelling cold and transforming turbidity. Classical formulas like Fuzi Lizhong Decoction or Jinkui Shenqi Pills serve as foundations, augmented with herbs such as *Atractylodes* and *Poria* to both warm and invigorate yang qi while resolving dampness and turbidity. Clinical observations show that applying the warming-yang and transforming-turbidity approach to cervical cancer patients reduces tumor marker levels while improving symptoms like fatigue and aversion to cold. Research further indicates that warming agents like Compound Mylabris Capsules inhibit cervical cancer cell proliferation, potentially through regulating inflammatory factors and promoting apoptosis. Crucially, dosage must be adjusted according to individual constitution during treatment to prevent excessive warming from damaging yin fluids. Case reports indicate that after three months of warming yang and transforming turbidity therapy, a late-stage cervical cancer patient experienced reduced pain, restored physical strength, and imaging studies revealed tumor volume reduction [36]. These findings suggest that

restoring spleen and kidney yang qi while eliminating cold-turbidity pathogens may offer novel therapeutic approaches for cervical cancer.

4.2 Regulating Qi Mechanism, Detoxifying and Transforming Turbidity, Directly Targeting the Uterus

In cervical cancer treatment, regulating qi dynamics and resolving turbid pathogens are critical steps. Clinically, detoxifying and turbidity-resolving Chinese herbal medicines like Compound Mylabris Capsules are commonly used. These drugs inhibit tumor cell proliferation and reduce inflammatory responses; for instance, patchouli ketone exerts anticancer effects by regulating apoptosis-related pathways [37]. The ancient medical text Golden Cabinet Essential Prescriptions records that Danggui Shaoyao Powder harmonizes qi and blood. Modern research confirms its active components improve local microcirculation. Impaired qi circulation leads to qi and blood stasis, closely linked to immune suppression and elevated inflammatory factors observed in cervical cancer pathology. Professor Zhan Libin emphasizes that unblocking qi circulation restores visceral functional balance. Common qi-regulating herbs include qi-moving agents like Bupleurum and Citrus aurantium, supplemented with tonifying herbs such as Astragalus and Atractylodes. Clinical observations indicate these combinations alleviate symptoms like fatigue and abdominal pain [31]. For advanced-stage patients, insect-derived herbs like blister beetle (*Mylabris phalerata*) and earthworm (*Lumbricus terrestris*) enhance stasis-resolving and mass-dispersing effects. Compound Blister Beetle Capsules combined with chemotherapy boost immune function, aligning with the “hardening mass-resolving” properties of insect medicines documented in the Divine Farmer’s Classic of Materia Medica. Modern experiments reveal that active components in Poria Decoction regulate inflammatory mediators in the tumor microenvironment [38], while Atractylodes extract inhibits HPV viral replication, providing molecular-level evidence for detoxification and clearing turbidity methods. Dr. Cui Yingmin emphasizes combining detoxification with fortifying the body’s defenses when treating high-risk HPV infections. Clinical data show his protocol reduces viral load by over 40%, suggesting that regulating qi function and eliminating turbid pathogens must proceed simultaneously.

5. Case Examples

A 45-year-old female patient was diagnosed with stage IIb cervical squamous cell carcinoma (FIGO 2018 staging) [39], presenting with yellowish vaginal discharge and cold pain in the waist and abdomen for over six months. Physical examination revealed a pale, swollen tongue with a white, greasy coating and a deep, thready pulse. HPV testing showed HR-HPV16 positivity, and MRI demonstrated a cervical mass measuring 3.2 cm × 4.1 cm. The patient had undergone cisplatin chemotherapy but developed bone marrow suppression, prompting a switch to TCM treatment. Based on the theory of “cold qi generating turbidity,” the pattern was identified as spleen-kidney yang deficiency with internal accumulation of turbid toxins. Treatment employed the method of warming yang and transforming turbidity. The foundational formula was modified Fuzi Lichong Decoction combined with Guizhi Fuling Pill, comprising processed

Aconite (6g, decocted first), stir-fried Atractylodes (15g), Poria 20g, Cinnamomum twig 10g, supplemented with Hedyotis 30g to detoxify and resolve turbidity. After 3 months of treatment, follow-up showed SCC-Ag decreased from 8.7ng/mL to 3.2ng/mL, and PET-CT indicated tumor shrinkage to 1.8cm × 2.3cm. During treatment, the patient concurrently took compound cantharidin capsules orally, resulting in a 70% reduction in vaginal discharge and relief of cold pain in the waist and abdomen. This case demonstrates that the method of warming yang and transforming turbidity can improve the tumor microenvironment. By regulating the levels of inflammatory factors TNF- α and IL-6 [32], it achieves simultaneous improvement in vaginal discharge symptoms and tumor markers. In the later treatment phase, 6g of *Eupolyphaga sinensis* was added to enhance stasis-resolving and mass-eliminating effects. No disease progression was observed during 12-month follow-up. This protocol embodies the academic principle of “minimizing fire to generate qi,” promoting turbidity-toxin metabolism by restoring spleen-kidney function, offering a novel therapeutic approach for advanced cervical cancer.

6. Conclusion

Cervical cancer, a common gynecological malignancy, has shown a persistent rise in incidence in recent years, closely linked to human papillomavirus infection, environmental factors, and immune deficiency. Modern medical approaches primarily rely on surgical resection and chemoradiotherapy, but these carry side effects such as bone marrow suppression and radiation enteritis, with limited efficacy for advanced-stage patients [29,33]. Traditional Chinese Medicine (TCM) offers a unique perspective based on the theory that “cold qi generates turbidity.” It posits that spleen-kidney yang deficiency disrupts qi transformation, leading to cold stagnation and turbidity accumulation that form cancer toxins—the core pathogenesis. Research indicates that cold pathogen invasion reduces immune function, corresponding to Western medical findings of elevated inflammatory factors and dysregulated autophagy. Clinically, TCM employs methods to warm yang, dispel cold, detoxify, and resolve turbidity. For instance, Yishen Huayu Tang combined with thymalfasin improves immune function, while compound cantharidin capsules alongside chemotherapy reduces tumor marker levels. In typical cases, external application of Zisha Lichong Tang demonstrated higher efficacy than interferon therapy for HPV infection [40], and Buzhong Yiqu Tang combined with acupuncture promotes postoperative bladder function recovery [41]. Classical formulas documented in ancient texts, such as Danggui Shaoyao San and Wumei Wan, demonstrate remarkable efficacy in regulating qi dynamics and resolving turbid toxins [2]. Modern experiments confirm that herbal components like Atractylodes and Patchouli can inhibit cancer cell proliferation and induce apoptosis [37]. Although TCM exhibits slower onset of action, it possesses unique advantages in symptom relief and survival extension through multi-targeted mechanisms including gut microbiota regulation and mitochondrial function restoration [22]. Future research should explore synergistic mechanisms between TCM active components and targeted therapies to establish more precise integrated Chinese-Western diagnostic and therapeutic models [42].

References

- [1] Liu Yufang, Yang Guobin. Selected Case Reports on the Treatment of Difficult Diseases with Danggui Shaoyao San from the Essential Prescriptions of the Golden Cabinet [J]. *Journal of Shandong Traditional Chinese Medicine*, 2023, 42(8): 874-878.
- [2] Wang Xi, Zhang Yingwen. Essentials of Treating Malignant Tumors with Jingfang Wu Mei Wan [J]. *Jiangsu Journal of Traditional Chinese Medicine*, 2022, 54(3): 50-53.
- [3] Cao Shan, Zhang Yijia, Duan Kaixuan, et al. Clinical Experience of Cui Yingmin in Treating Persistent High-Risk HPV Infection [J]. *Chinese Traditional Medicine Clinical Case Database*, 2023 (null): 1-5.
- [4] Fang Yan, Li Liu, Cheng Haibo. Application of the Method for Eliminating Dampness and Detoxification in the Prevention and Treatment of Malignant Tumors Based on the Pathogenesis of Damp-Toxicity [J]. *Jiangsu Journal of Traditional Chinese Medicine*, 2023, 55(8): 60-63.
- [5] Chen, Guanqiao, et al. The construction and analysis of tricarboxylic acid cycle related prognostic model for cervical cancer. *Frontiers in Genetics* 14 (2023): 1092276.
- [6] Lian, Jing, et al. Exploring the Potential Use of Chinese Herbs in Regulating the Inflammatory Microenvironment of Tumors Based on the Concept of "State-Target Identification and Treatment": A Scooping Review. *Chinese Medicine* 18.1 (2023): 124.
- [7] Li Yongjie, Huang Qiaoyun, Liao Yixi. Analysis of the Application Value of Compound Mylabris Capsules in Postoperative Radiochemotherapy for Cervical Cancer and Its Effects on Tumor Markers [J]. *Journal of Chinese Medicine and Pharmacy*, 2022, 40(3): 205-208.
- [8] Gandhi, Sivasangkary, et al. Evaluation of the proteomic landscape of HPV E7-induced alterations in human keratinocytes reveals therapeutically relevant pathways for cervical cancer. *Molecular Medicine Reports* 27.2 (2023): 46.
- [9] Fan Danfeng, Yue Xiaoqing, Wang Tianjiao. Academic thoughts and experience summary of Zhan Libin in treating gynecological malignant tumors [J]. *Modern Chinese Medicine Clinical*, 2024, 31(6): 67-73.
- [10] Qu Yuting, Song Fengli, Kang Ning, et al. Selected Experiences of Professor Li Tong in Treating Cervical Cancer with Modified Guizhi Fuling Pill [J]. *Inner Mongolia Journal of Traditional Chinese Medicine*, 2022, 41(1): 84-85.
- [11] Chen Jingshuang, Qian Haimo, Zhang Qin. Advances in Traditional Chinese Medicine Treatment for Cervical Human Papillomavirus Infection [J]. *Traditional Chinese Medicine*, 2023, 12: 2392.
- [12] Wang Chu, Yi Ying, Cao Ying, et al. Exploring the Relationship Between Human Papillomavirus and Cervical Cancer Through the Lens of Damp-Heat [J]. *Modern Chinese Medicine Clinical*, 2023, 30(4): 84-87.
- [13] Zhang Jinhua, Tian Yuan, Yang Xiaoping. Advances in Tumor Angiogenesis and Traditional Chinese Medicine's Anti-Angiogenic Effects [J]. *New Medicine*, 2022, 53(1): 18-21.
- [14] Feng Miaomiao, Li Jinying, Deng Gaopi. Effects of Realgar on Cervical Cancer Cell Proliferation, Apoptosis, and the HPV E6/IL-6/STAT3 Pathway [J]. *Guangdong Medical Journal*, 2024, 45(3).
- [15] Zheng YC, Song M, Wang Y, et al. Application value of serum DD and CYFRA21-1 levels in evaluating chemotherapy efficacy for cervical cancer [J]. *Medical Clinical Research*, 40(3): 441-443.
- [16] Xu Yan. Effects of Compound Mylabris Capsules Combined with Paclitaxel and Cisplatin Chemotherapy on Tumor Markers and Cellular Immune Function in Patients with Advanced Cervical Cancer [J]. *Chinese Medical Innovation*, 20(24): 5-9.
- [17] Liu Yi, Liu Qing, Liu Kaijiang, et al. Value of Imaging Examinations in Diagnosing Pelvic and Abdominal Lymph Node Metastasis in Cervical Cancer [J]. *Journal of International Obstetrics & Gynecology*, 2022, 49(3).
- [18] Duan, Ping, et al. Icarin-Mediated MiR-875-5p Inhibits Autophagy and Epithelial-Mesenchymal Transition by Regulation of MDM4 in Cervical Cancer. *Journal of Biomedical Nanotechnology* 18.12 (2022): 2708-2720.
- [19] Zhao Biao, Wang Yuchen, Wang Yang. Research Progress on Comprehensive Development and Utilization of Chinese Medicinal Herb *Atractylodes Macrocephala* [J]. *Hans Journal of Agricultural Sciences*, 2022, 12: 731.
- [20] Wu Hao, Ding Jingyong, Geng Bizhu, et al. Clinical Study on the Combined Use of Kidney-Tonifying, Spleen-Strengthening, and Intestinal-Warming Formula with Enema Therapy for Chronic Radiation Enteritis (Spleen-Kidney Deficiency) [J]. *Chinese Journal of Integrative Medicine in Gastroenterology*, 2023, 31(4): 274-278.
- [21] Yang Xiaojuan, Liu Sheng. Liu Sheng's Experience in Diagnosing and Treating Postoperative Lymphoedema in Breast Cancer Based on the Theory of "Blood Stagnation Leads to Water Retention" [J]. *Shanghai Journal of Traditional Chinese Medicine*, 2022, 56(8): 33-36.
- [22] Ding Lingling. Network Pharmacology-Based Exploration of the Mechanism of Action of Guizhi Fuling Pill in Treating Cervical Cancer [J]. *Traditional Chinese Medicine*, 2023, 12: 2310.
- [23] Guo Jing. Nutritional Status and Analysis of Early Nutritional Support Therapy Outcomes in Advanced Cervical Cancer Patients [J]. *International Journal of Clinical Medicine*, 2024, 5(11).
- [24] Muthusami, Sridhar, et al. A review on the role of epidermal growth factor signaling in the development, progression and treatment of cervical cancer. *International Journal of Biological Macromolecules* 194 (2022): 179-187.
- [25] Kokhdan, Esmael Panahi, et al. Anti-cancer activity of secreted aspartyl proteinase protein from *Candida tropicalis* on human cervical cancer HeLa cells. *Toxicon* 249 (2024): 108073.
- [26] Zhang, Siyang, et al. RGS1 and related genes as potential targets for immunotherapy in cervical cancer: computational biology and experimental validation. *Journal of translational medicine* 20.1 (2022): 334.
- [27] Wang, Juan, and Cao, Xiaoxia. Effects of Compound Kushen Injection Combined with Neoadjuvant Chemotherapy on Cellular Immune Function, Inflammatory Response, and Quality of Life in Cervical

- Cancer Patients [J]. *Clinical Medicine Research and Practice*, 2022.
- [28] Feng Gaofer, Peng Zhaowen, Sun Xiaomei, et al. Integrated treatment of advanced cervical cancer guided by traditional Chinese medicine theory: A case report [J]. *Chinese Clinical Case Database of Traditional Chinese Medicine*, 2023 (null): 1-8.
- [29] Liu Jinshuang, Jiang Jia Kang. Current Status of Integrated Chinese and Western Medicine Treatment for Toxic Side Effects After Radiotherapy in Cervical Cancer Patients [J]. *Advances in Clinical Medicine*, 2025, 15: 1477.
- [30] Li Weiwei. Efficacy Study of Fuzheng Granules in Treating Leukopenia After Concurrent Radiochemotherapy for Cervical Cancer [J]. *Contemporary Medicine*, 2022.
- [31] Ren, M. M., Gao, X., Yang, X. B., et al. Effects of Blood-Activating and Stasis-Resolving Therapy Based on Yishen Huayu Decoction Combined with Thymalfasin on Renal Interstitial Damage and Immune Regulation After Chemotherapy in Advanced Cervical Cancer [J]. *Progress in Modern Biomedicine*, 2024, 24(15).
- [32] Luo Qiongyu, Li Wenquan, Chen Lei, et al. Clinical Efficacy of Chinese Herbal Enemas on Patients with Acute Radiation-Induced Proctitis from Cervical Cancer and Their Effects on Serum IL-1 β , IL-8, and TNF- α Levels [J]. *Progress in Modern Biomedicine*, 2024 (4).
- [33] Cui Ying, Wang Bingxin, Guo Lin, et al. Efficacy of Concurrent Chemoradiotherapy Combined with Induction Chemotherapy for Locally Advanced Non-Small Cell Lung Cancer and Its Effects on Serum Vascular Endothelial Growth Factor, Immune Function, and Quality of Life[J]. *Journal of Clinical Internal Medicine*, 2024, 41(11): 747-750.
- [34] Zhao Lei, Guo Qi, Cai Xiaojun, et al. Mechanism of Guizhi Fuling Capsules on Ovarian Cancer Cell Cycle Based on Caspase-4/GSDME-Mediated Pyroptosis [J]. *Journal of Hainan Medical University*, 2025, 31(3).
- [35] Xu Xintong, Guo Jie, Song Dianrong, et al. Study on Traditional Chinese Medicine Syndrome Patterns in HR-HPV Infection and Cervical Lesions [J]. *Tianjin Journal of Traditional Chinese Medicine*, 2023, 40(10): 1248-1252.
- [36] Liu Yuanyuan, Peng Tao. Selected Clinical Cases of Peng Tao's Treatment for Cervical Cancer ※ [J]. *Chinese Folk Therapy*, 2022.
- [37] Liu Jingjian, Ran Fengying, Yang Guangyi, et al. Study on the Effects of Pogostemon Ketone on Proliferation, Apoptosis, Migration, and Invasion of Human Cervical Cancer SiHa Cells [J]. *Practical Pharmacy & Clinical Remedies*, 2022, 25(8).
- [38] Zhou Hongli, Zhou Hongguang. Application of Zhu Ling Tang in the Treatment of Cancerous Edema [J]. *Chinese Database of Clinical Case Results in Traditional Chinese Medicine*, 2023 (2): 54-56.
- [39] Fu Yuying. Diagnostic Value of Dynamic Contrast - Enhanced MRI Based on FIGO 2018 Staging in Preoperative Staging of Cervical Cancer [J]. *Clinical Medical Research*, 42(1): 102-104.
- [40] Chen Qiuye, Lu Wenping. Randomized Controlled Study on Zishali Chong Decoction Combined with External Wash Formula for Cervical Cancer with Human Papillomavirus Infection [J]. *Chinese Journal of Integrative Medicine*, 2023, 43(8): 916-921.
- [41] Xianfen J I. Effect of Acupuncture Combined with Modified Bu Zhong Yi Qi Decoction on Bladder Function Recovery in Patients with Urinary Retention After Radical Cervical Cancer Surgery[J]. *Chinese Medical Innovation*, 21(34): 24-28.
- [42] Wang BX, Liu SJ. Application of Traditional Chinese Medicine's "Preventive Medicine" Theory in Cervical Cancer Based on the "Inflammation-Cancer Theory" [J]. *Journal of Clinical Personalized Medicine*, 2024, 3: 709.