

# Research Progress of Gegen Qinlian Decoction in the Treatment of Oral Mucosal Diseases

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**Abstract:** This paper aims to explore the application and research progress of Gegen Qinlian Decoction in the treatment of oral mucosal diseases. Through a comprehensive analysis of relevant literature, this article elaborates on the composition and pharmacological effects of Gegen Qinlian Decoction, as well as its therapeutic effects and mechanisms in the treatment of common oral mucosal diseases such as recurrent oral ulcers, oral lichen planus, and burning mouth syndrome. Research has shown that Gegen Qinlian Decoction has significant advantages and potential in the treatment of oral mucosal diseases, providing new ideas and methods for clinical treatment.

**Keywords:** Gegen Qin Lian Decoction; Oral Mucosal Disease; Treatment; Research Progress.

## 1. Introduction

Oral mucosal disease is a type of disease that occurs on the oral mucosa and soft tissue. Common diseases include recurrent oral ulcers, oral lichen planus, burning mouth syndrome, etc. Its pathogenesis is complex and treatment is difficult. In recent years, traditional Chinese medicine has played an important role in the treatment of oral mucosal diseases, and Gegen Qinlian Decoction, as one of the classic formulas, has gradually received attention.

## 2. The Composition and Traditional Efficacy of Gegen Qinlian Decoction

Gegen Qinlian Decoction comes from the Treatise on Cold Damage and is composed of four herbs: Gegen, Huang Qin, Huang Lian, and roasted licorice. Traditionally, this formula has the effects of clearing the exterior and clearing the interior, stopping diarrhea and dysentery, and is commonly used to treat diseases such as diarrhea and dysentery caused by unresolved external symptoms and heat entering the interior.

## 3. Modern Pharmacological Research on Gegen Qin Lian Decoction

### (1) Anti-inflammatory effects

The components such as *Scutellaria baicalensis* and *Coptis chinensis* in Gegen Qinlian Decoction have significant anti-inflammatory activity, which can inhibit the release of inflammatory mediators and alleviate inflammatory reactions.

For example, baicalin in *Scutellaria baicalensis* can inhibit the expression of inflammatory factors such as interleukin-6 (IL-6) and tumor necrosis factor alpha (TNF alpha), thereby exerting anti-inflammatory effects.

### (2) Regulating immunity

This formula has a regulatory effect on the immune system, can enhance the body's immune function, and help resist the invasion of pathogens.

Research has found that Gegen Qinlian Decoction can regulate the function of T cells and B cells, promoting the restoration of immune balance.

### (3) Antibacterial and antiviral

Berberine and other components in Huanglian have strong

antibacterial and antiviral activities, and have inhibitory effects on various common oral pathogens and viruses.

## 4. The Application of Gegen Qinlian Decoction in the Treatment of Common Oral Mucosal Diseases

### (1) Recurrent oral ulcers

Recurrent oral ulcer is a common oral mucosal disease, and its etiology is not yet clear, which may be related to immune, genetic, environmental and other factors. Multiple clinical studies have shown that modified Gegen Qinlian Decoction can significantly shorten the healing time of recurrent oral ulcers, alleviate pain symptoms, and reduce the recurrence rate.

For example, a study randomly divided 80 patients with recurrent oral ulcers into a treatment group and a control group. The treatment group was treated with modified Gegen Qinlian Decoction, while the control group was treated with conventional Western medicine. The results showed that the total effective rate of the treatment group was 90%, significantly higher than the control group's 70%.

### (2) Oral lichen planus

Oral lichen planus is a chronic inflammatory disease closely related to immune disorders, psychological factors, and other factors. Gegen Qinlian Decoction has also achieved certain therapeutic effects in the treatment of oral lichen planus.

A study has used Gegen Qinlian Decoction combined with glucocorticoids to treat oral lichen planus, and found that it can improve clinical efficacy and reduce the side effects of glucocorticoids.

### (3) Burn mouth syndrome

Burn mouth syndrome is a disease characterized by burning pain in the oral mucosa, and its pathogenesis is not yet clear. Gegen Qinlian Decoction has a certain effect on improving the symptoms of patients with burning mouth syndrome.

A clinical observation found that modified Gegen Qinlian Decoction can effectively alleviate pain and improve the quality of life of patients with burning mouth syndrome.

## 5. Conclusion

In summary, Gegen Qinlian Decoction has significant

therapeutic effects and broad application prospects in the treatment of oral mucosal diseases. With the continuous development of modern medical technology and in-depth research on the mechanism of action of traditional Chinese medicine, Gegen Qinlian Decoction is expected to provide a more effective treatment strategy for oral mucosal diseases. However, current research still has some limitations, such as small sample size and inadequate research methods. In the future, more large-scale, multicenter, randomized controlled clinical studies are needed to further clarify the efficacy and mechanism of Gegen Qinlian Decoction in treating oral mucosal diseases, providing more scientific and reliable basis for its clinical application. At the same time, efforts should

also be made to strengthen the drug development and dosage form improvement of Gegen Qinlian Decoction, in order to improve its clinical convenience and patient compliance, and bring more benefits to patients with oral mucosal diseases.

## References

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