

# Real-World Effectiveness of an Herbal Therapy in Treating and Preventing Multiple Viral Infectious Diseases: An Evidence-Based Systematic Review

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**Received Date:** January 30, 2026 | **Accepted Date:** February 09, 2026 | **Published Date:** February 16, 2026

**Citation:** Jiangnan Feng, Zhenghua Ma, Meiyi Gao, (2026), Real-World Effectiveness of an Herbal Therapy in Treating and Preventing Multiple Viral Infectious Diseases: An Evidence-Based Systematic Review, *International Journal of Clinical Case Reports and Reviews*, 34(2);

**DOI:**[10.31579/2690-4861/1046](https://doi.org/10.31579/2690-4861/1046)

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## Abstract:

**Background:** To date, no effective therapeutic interventions for viral infectious diseases have yet been established. A recently reported herbal medicine-based therapeutic known as “Marecipe AV” has demonstrated potent efficacy in managing viral infectious diseases.

**Aim:** This review aimed to introduce an herbal therapy with demonstrated potent and clinically satisfactory efficacy against viral infections, and presents its therapeutic and preventive outcomes across multiple species under real-world conditions.

**Methods:** This review summarizes the therapeutic outcomes of the Marecipe AV herbal remedy for various viral infectious diseases.

**Results:** The findings indicate that Marecipe AV exhibits significant clinical benefits in treating a range of viral diseases, including COVID-19, African swine fever, porcine reproductive and respiratory syndrome, Newcastle disease, avian influenza, canine distemper, canine parvovirus infection, feline panleukopenia, koi herpesvirus disease, herpesviral hematopoietic necrosis disease, grass carp hemorrhagic disease, and largemouth bass ranavirus. The application of Marecipe AV herbal therapy has reduced the mortality rate associated with these lethal viral diseases from nearly 100% to close to 0%. Additionally, Marecipe AV herbal therapy has shown promising therapeutic efficacy in managing certain chronic viral infections, as well as some acute but non-fatal viral diseases, including Herpes Zoster, postherpetic neuralgia, chronic hepatitis B, feline acquired immunodeficiency syndrome, feline infectious peritonitis, feline chronic gingivostomatitis, and ulceration and erosion lesions in largemouth bass. However, the Marecipe AV herbal therapy appears to only inhibit the virus but cannot completely eliminate it. The long-term effectiveness of Marecipe AV herbal therapy in managing certain chronic viral diseases requires further investigation for validation.

**Conclusion:** Marecipe AV herbal therapy shows potential as a groundbreaking approach to treating and managing a broad spectrum of viral infectious diseases.

**Key words:** viral infectious diseases; herbal medicine; treatment; prevention; therapies

## Introduction

Viral infections represent a leading cause of morbidity and mortality globally, continuing to pose a significant public health challenge that is often exacerbated by the absence of universally effective therapeutics [1]. The emergence of SARS-CoV-2 in December 2019 triggered a global

pandemic that severely disrupted economic and social systems worldwide [2]. Despite ongoing efforts by the medical and scientific communities, effective treatments for the vast majority of viral diseases remain undeveloped [3]. A recently reported herbal medicine-based therapeutic

known as "Marecipe AV" has demonstrated potent efficacy in managing viral infectious diseases [4]. Marecipe AV is derived from an ancient formulation referred to as "Ma Recipe," which was originally used to treat venomous snakebites. As a detoxifying agent, the Ma Recipe has exhibited therapeutic effects that surpass modern scientific understanding. It provides robust protection against high doses of various snake venom toxins, including neurotoxic, hemotoxic, cytotoxic, and mixed types. Furthermore, even when exposed to exceptionally high levels of chemical toxins, such as organophosphates, The Ma Recipe facilitates rapid detoxification and promotes complete recovery *in vivo*. The Ma Recipe has also shown significant therapeutic efficacy in the management of malignant tumors [5]. Treatment with the Ma Recipe was associated with an overall 5-year survival rate of 87% in patients with advanced malignant neoplasms, including progressive hepatocellular carcinoma, non-small cell lung cancer, and esophageal carcinoma [6]. Pathological assessments confirmed the complete eradication of malignant cells in the lesions of all esophageal cancer patients treated with the Ma Recipe [7]. However, these results are questionable, as they are derived not from standard scientific trials but from a case report involving fewer than 100 cases; moreover, the outcomes appear remarkably favorable, exceeding the explanatory capacity of current medical understanding. Nevertheless, these findings suggest that the Marecipe AV herbal medicine may possess significant therapeutic properties. This review aims to summarize the outcomes of Marecipe AV in the treatment and prevention of viral infectious diseases.

## Method

This review synthesizes therapeutic outcomes from both published and forthcoming literature by the original research team regarding the

application of Marecipe AV herbal therapy for the treatment of viral infectious diseases in real-world settings.

## Results and Discussion

To evaluate the therapeutic efficacy of Marecipe AV herbal therapy for viral infectious diseases, a total of 23 experimental treatments targeting these diseases were administered across multiple species, including humans, pets, livestock, poultry, and fish. All interventions were conducted within a real-world clinical setting.

The study cohort comprised individuals with naturally acquired infections, as confirmed by laboratory identification [4 to 9]. The primary therapeutic approach involved oral administration [4 to 9]. Treatment efficacy was assessed by comparing key symptoms, viral load, and mortality rates before and after the intervention, as well as between the treatment and control groups. All procedures adhered strictly to conventional traditional Chinese medicine (TCM) practices. Specifically, licensed TCM practitioners formulated the prescriptions, after which patients obtained the corresponding herbal medicines from a designated TCM pharmacy. The medications were then prepared and administered according to the practitioners' guidelines. This approach complies with the legal, regulatory, and ethical standards governing TCM. In some experiments, deviations in the results occurred due to insufficient medication dosage, attributed to the challenges some individuals faced with oral administration. However, these deviations in the implemented treatment were limited and did not significantly impact the primary efficacy evaluation. All therapeutic outcomes are listed in Table 1.

Viral diseases treated with Marecipe AV herbal therapy	Treated / Untreat ( % )
<b>Mortality in severe patients with COVID-19.</b>	0 / 36.36
<b>Mortality in critically ill patients with COVID-19.</b>	0 / 100
<b>Clinical cure rate in patients with mild and moderate COVID-19 (48 hours post-treatment).</b>	100 / 0
<b>The rate of fever relief in patients with mild and moderate COVID-19 (24 hours post-treatment).</b>	100 / 0
<b>The hospitalization rate in high-risk COVID-19 patients</b>	0 / 68.18
<b>Clinical cure rate in patients with Influenza (24 hours post-treatment).</b>	100 / 0
<b>Clinical cure rate in patients with Herpes Zoster (9 days post-treatment).</b>	100 / 0
<b>Mortality in dogs with Canine Distemper.</b>	
<b>In first trial</b>	10.11 / 82.88;
<b>In second trial</b>	1.72 / 100
<b>In third trial</b>	7.6 / -
<b>Incidence of Canine Distemper in CDV-exposed dogs with post-exposure prophylaxis.</b>	
<b>In first trial</b>	-/-
<b>In second trial</b>	0 / 74.44
<b>In third trial</b>	0 / 69
<b>Mortality in dogs with Canine Parvovirus infection.</b>	
<b>In first trial</b>	0 / 87.50
<b>In second trial</b>	0 / 79.56
<b>In third trial</b>	0 / 82.0
<b>Incidence of Canine Parvovirus in CPV-exposed dogs with post-exposure prophylaxis.</b>	
<b>In first trial</b>	0 / 96.55
<b>In second trial</b>	0 / -
<b>Mortality in domestic pigs with African Swine Fever (ASF).</b>	

<b>In first trial</b>	28.57 / 100* <sup>1</sup>
<b>In second trial</b>	0 / 100
<b>In third trial</b>	0 / 100
<b>In fourth trial</b>	0 / 100
<b>In fifth trial</b>	0 / 100
<b>Incidence of ASF in ASFV-exposed domestic pigs with post-exposure prophylaxis.</b>	
<b>In third trial</b>	0 / 100
<b>In fourth trial</b>	≤0.1 / ≥50* <sup>2</sup>
<b>In fifth trial</b>	≤0.1 / ≥50* <sup>3</sup>
<b>Mortality in piglets with PRRS (HP-PRRSV infection).</b>	21.25 / 60.62
<b>Mortality in HP-PRRSV-exposed piglets with post-exposure prophylaxis.</b>	
<b>In second trial</b>	0 / 94.37
<b>In third trial</b>	0 / -
<b>Mortality in chickens with Avian Influenza.</b>	33.34 / 98.33
<b>Mortality in AIV-exposed chickens with post-exposure prophylaxis.</b>	4.60 / 85
<b>Mortality in ducks with Avian Influenza.</b>	39.00 / 100
<b>Mortality in AIV-exposed ducks with post-exposure prophylaxis.</b>	0.86 / 99.83
<b>Mortality in ostriches with Newcastle disease (ND)</b>	0 / 100
<b>The cure rate in ostriches with Newcastle disease (ND)</b>	100 / 0
<b>Mortality in cats with Feline Panleukopenia.</b>	0 / 85* <sup>4</sup>
<b>Mortality in Largemouth bass ranavirus.</b>	Approximately 1.20 / 72
<b>Mortality in LMBV-exposed Largemouth Bass with post-exposure prophylaxis.</b>	Approximately 0.06 / 72
<b>Mortality in Cyprinus Carpio with Koi Herpesvirus Disease (KHVD) .</b>	Approximately 4.5 / 82
<b>Mortality in KHV-exposed Cyprinus carpio with post-exposure prophylaxis.</b>	≤0.2 / 82
<b>Mortality in GCRV-exposed Grass carp with post-exposure prophylaxis.</b>	Approximately 6 / 80-95
<b>Mortality in Herpesviral Hematopoietic Necrosis Disease (HVHND) in Carassius auratus</b>	Approximately 70 / ≥95
<b>Mortality in HVHND in Carassius auratus with post-exposure prophylaxis.</b>	
<b>In second trial</b>	Approximately 3.24 / ≥95
<b>In third trial</b>	Approximately 4.76 / ≥95
<b>Clinical cure rate in patients with Postherpetic Neuralgia (5-15 days post-treatment).</b>	100 / 0
<b>Clinical remission rate in patients with HPV-associated Cervical Erosion and Genital Warts (30 days post-treatment).</b>	100 / -
<b>Clinical remission rate (Virological remission) in patients with chronic hepatitis B (CHB).</b>	77.27 / 0;59.1* <sup>5</sup>
<b>Clinical remission rate in cats with Feline Acquired Immunodeficiency Syndrome (FAIDS) .</b>	100 / -
<b>Clinical remission rate in Feline Infectious Peritonitis (FIP).</b>	100 / ≤ 5* <sup>6</sup> 100 / 72-100* <sup>7</sup>
<b>Clinical remission rate in Calicivirus-associated Feline chronic gingivostomatitis (FCGS).</b>	100 / 0* <sup>6</sup> 100 / 28.4-41* <sup>8</sup>
<b>Clinical remission rate in LMBV -associated ulceration and erosion lesions in Largemouth Bass.</b>	80 0

**Table1:** Summary of the therapeutic outcomes of Marecipe AV herbal therapy in treating and preventing several viral infectious diseases.

**Note:** \*1 : The statistical analysis was conducted based on the following data: it was uncertain whether the subjects had received an adequate dose of the medication. \*2 and \*3 : when the mortality rate reached 50%, the experiment was terminated and data collection was stopped. \*4, \*5, \*6 and \*7:

The data of the untreated group is derived from previously published literature.

### 1.1. Main Outcomes of Marecipe AV in the Treatment of COVID-19 [8, 9]

1.1.1. Oral administration of Marecipe AV herbal medicine demonstrated a significant reduction in mortality rates among patients with severe and critical COVID-19 cases. Specifically, the mortality rate was 0% in the

treatment group (0 out of 17 patients), compared to 36.36% in the untreated severe COVID-19 cohort (8 out of 22 patients). Among critically ill patients, a 0% case fatality rate was observed in the treated group (0 out of 3 patients), in stark contrast to a 100% mortality rate in the untreated control group (19 out of 19 patients). These findings suggest a substantial therapeutic benefit of Marecipe AV in managing severe and critically ill COVID-19 cases.

**1.1.2.** The hospitalization rate for severe COVID-19 was significantly lower in high-risk patients who received Marecipe AV treatment (0%, 0 out of 56 patients) compared to untreated controls (68.18%, 15 out of 22 patients), indicating a reduction in the need for hospitalization among those treated with the herbal remedy.

**1.1.3.** In a cohort of 122 patients with mild-to-moderate COVID-19 who received the oral Marecipe AV herbal medicine, the median time to sustained resolution of clinical symptoms was less than 48 hours. This duration was significantly shorter than the 216.0 hours observed in a placebo group of 365 patients. Furthermore, fever resolution following SARS-CoV-2 infection occurred within 24 hours after administration of Marecipe AV in all treated patients, whereas the median time to fever resolution in the placebo group was 10 days (range: 8-11 days) [8].

**1.1.4.** Prophylactic administration of Marecipe AV herbal medicine was associated with a significantly lower incidence of COVID-19-related fever. None of the subjects in the post-exposure prophylaxis group (37 cases) developed fever following SARS-CoV-2 exposure, compared to an incidence of 98% in the placebo group (102 cases). This marked reduction in fever in the two groups suggests a preventive effect.

Based solely on the above results, Marecipe AV therapy appears to have achieved highly satisfactory therapeutic effects, potentially exceeding expectations for COVID-19 drug efficacy. Specifically, the Marecipe AV herbal therapy intervention can halt the natural progression of COVID-19 within two days. Early administration of this intervention may prevent high-risk individuals from progressing to severe illness. The preventive use of this therapy can effectively avert the onset of COVID-19 in populations exposed to SARS-CoV-2. Early intervention with Marecipe AV, particularly when initiated prophylactically or at the initial onset of symptoms, may completely prevent the full spectrum of harms associated with COVID-19. However, these therapeutic outcomes should be interpreted with caution, as they are derived from outpatient records rather than rigorously controlled clinical trials. The efficacy of Marecipe AV, especially in severe and critical cases, should not be evaluated based on a limited number of treatment samples, and further validation in large-scale, rigorous clinical trials is warranted.

## 1.2. The Main Outcomes of Marecipe AV in the Treatment of Influenza.

The principal advantage of Marecipe AV therapy in the treatment of influenza lies in its ability to achieve rapid resolution of influenza-associated fever, typically within 12 hours after the initial dose. In contrast, oseltamivir takes an average of 61.05 hours, and placebo results in 68.1 hours for fever resolution. Additionally, Marecipe AV significantly reduces the duration of influenza symptoms from the typical 5 to 7 days to within 24 hours.

While it is important to note that all data were derived from retrospective analyses of outpatient medical records rather than from prospective clinical studies, the original author asserts that the evidence supporting

Marecipe AV's potential to achieve a complete cure for seasonal influenza within 24 hours is highly reliable. This assertion is based on five years of outpatient data, during which there was not a single case of treatment failure [9].

## 1.3. The Main Outcomes of Marecipe AV in the Treatment of Herpes Zoster.

Herpes zoster, also known as shingles, is a viral disease characterized by a painful skin rash with blisters in a localized area. Current clinical consensus indicates that available treatments are unable to provide definitive therapeutic benefits [10,11].

The therapeutic outcomes of Marecipe AV indicate that severe pain was completely alleviated within 1 to 3 days following administration in all treated patients with acute Herpes Zoster. Once the pain subsided, it did not recur in any of the treated cases. In contrast, over 90% of patients in both the cyclosporin A and placebo cohorts continued to report varying levels of pain at 21 days following rash onset. The clinical lesion healing time was 3 to 5 days in the Marecipe AV group, compared with 14 to 28 days in the placebo group. Notably, the Marecipe AV therapy group exhibited a 0% incidence of postherpetic neuralgia (PHN), whereas the incidence rate in the placebo group ranged from 5% to 30%.

In general, oral administration of Marecipe AV for a period of 3 to 9 days (typically less than 3 to 5 days in most cases) results in the complete resolution of acute Herpes Zoster [12]. Based on these findings, Marecipe AV demonstrates clear and satisfactory therapeutic effects, as it significantly shortens the duration of Herpes Zoster and completely prevents the occurrence of PHN.

## 2. Marecipe AV Herbal Therapy in the Management of Acute Viral Infectious Diseases in Pet Animals and Livestock.

### 2.1 Outcomes of Marecipe AV Herbal Therapy in Treating and Preventing Canine Distemper, Including Cases Co-infected with Canine Distemper Virus and Canine Parvovirus.

**2.1.1** Canine distemper (CD) is an acute, highly contagious disease with a high mortality rate, caused by the canine distemper virus (CDV). The primary treatment for canine distemper currently involves intensive supportive care [13]. To strengthen the evidence for the efficacy of Marecipe AV herbal therapy in treating canine distemper, three sequential trials were conducted across different treatment units. In the first trial, the mortality rate among dogs with canine distemper was 10.11% for those treated with Marecipe AV, compared to 82.88% for the untreated group. In the second trial, the mortality rates observed were 1.72% for treated dogs and 77.78% for those receiving alternative treatments. In the third trial, the mortality rate in the treated cohort was 7.69%, although this trial did not include a control group.

**2.1.2** All reported fatalities occurred in CDV-infected dogs that exhibited neurological involvement. In the initial trial, the clinical remission rate for convulsive symptoms in CDV-infected dogs was 47%, but this rate declined to 29% in the subsequent trial. These outcomes were observed following a treatment period of 20 days [14].

**2.1.3** The incidence of Canine Distemper in CDV-exposed dogs receiving post-exposure prophylaxis with Marecipe AV herbal medicine was zero, compared to incidence rates of 74.44% and 69% in the placebo groups during the two trials, respectively.

**2.1.4** In an unpublished experiment, the first observation of sudden death in dogs with Canine Distemper was reported. The incidence of sudden death was 1.58% (5 out of 316). A common feature among all deceased cases was the mild manifestation of canine distemper-related symptoms or the absence of such symptoms for more than 20 days following treatment. Autopsies of the two deceased dogs revealed significant enlargement of the heart, accompanied by substantial bleeding within the heart (beneath the pericardium). These findings suggest that cardiac damage could potentially be the underlying cause of sudden death in dogs with canine distemper. Given that the clustering of sudden deaths was both temporally and spatially restricted, it is postulated that the observed myocardial injury may result from infection with a canine distemper virus variant that demonstrates specific tropism for cardiac tissue. It should also be noted that Marecipe AV herbal therapy cannot prevent sudden death in dogs with canine distemper.

**2.1.5.** Instances of viral shedding were identified in dogs undergoing rehabilitation following CDV infection. A common feature among the three cases was that the clinical symptoms were mild or even absent, and their viral loads remained stable without a gradual decrease after treatment. Unfortunately, therapy for these dogs was discontinued after 30 days, and no subsequent monitoring was conducted to assess viral clearance. Consequently, it is impossible to determine whether the viral carrier status of these dogs would change with longer-term treatment. In summary, rapid viral clearance was achieved in most cases following the administration of Marecipe AV herbal therapy; however, the therapy failed to eradicate the virus in a small subset of patients. Marecipe AV herbal therapy has demonstrated satisfactory efficacy in treating canine distemper, including cases with neurological inflammation, where the associated mortality rate approached 50%. Given that the mortality rate in the preventive treatment group was zero, this outcome can be attributed to the prevention of symptom onset through early intervention. Furthermore, deaths occurred only in CDV-infected dogs that had developed neurological involvement. Therefore, early treatment, particularly before the onset of convulsive symptoms indicating neurological inflammation, is crucial when using Marecipe AV therapy for canine distemper.

## 2.2. Outcomes of Marecipe AV Herbal Therapy in Treating Canine Parvovirus Infection.

Canine parvovirus (CPV) is a highly contagious disease in dogs, and the associated mortality rate remains extremely high due to the current lack of direct and effective treatment options [15]. In a series of clinical studies evaluating the real-world efficacy of Marecipe AV therapy for CPV infection, the mortality rate among treated dogs was 0%, in stark contrast to 87.5% in the placebo group. Among high-risk dogs exposed to both canine coronavirus (COV) and CPV, the infection rate for CPV was 0% in those receiving post-exposure prophylaxis with Marecipe AV, compared to a staggering 96.55% in untreated dogs. Since the implementation of Marecipe AV herbal therapy, no further fatalities from CPV infection have been reported at the participating veterinary hospitals. The majority of dogs infected with CPV achieve a complete clinical cure within 2 to 5 days of receiving Marecipe AV therapy. Clinical veterinarians involved in this study reached a consensus that with Marecipe AV herbal medicine, canine parvovirus infection is no longer considered a dangerous condition and can be managed as easily as treating the common flu. According to the research results, Marecipe AV herbal therapy can effectively control canine parvovirus infection [16].

## 2.3 Outcomes of Marecipe AV Herbal Therapy in Treating and Preventing African Swine Fever (ASF).

African swine fever is an acute, severe, and highly contagious disease caused by the African swine fever virus (ASFV). Its highly virulent strains are extremely pathogenic to pigs, with a mortality rate of 100% [17].

**2.3.1** In the initial trial, the mortality rate was 28.57% in the treated group, compared to 100% in the placebo group. In the four subsequent large-scale trials, the mortality rate in the treated group was nearly 0%, while the placebo group again exhibited a 100% mortality rate. The participants in this study unanimously believed that the higher mortality rate in the initial trial was primarily attributable to the subjects not receiving adequate medication, which was related to the low success rate of drug administration via gavage operation [16].

**2.3.2** The incidence and mortality of ASF in high-risk ASFV-exposed domestic pigs with post-exposure prophylaxis were both zero, compared to 100% in the placebo control group.

The reported 100% cure rate in these trials appears highly implausible, particularly considering that African swine fever (ASF) is a severe disease with high mortality. It is noteworthy, however, that in all four large-scale studies, the treated swine were in the early stages of infection and displayed only mild symptoms. Early intervention is thus crucial when applying the Marecipe AV regimen for ASF treatment. The therapeutic outcomes demonstrate that Marecipe AV herbal therapy has a potent treatment effect. When administered early in the course of the disease or used preventively, this herbal regimen can achieve complete control of ASF.

## 2.4 Outcomes of Marecipe AV Herbal Therapy in Treating and Preventing Piglets with Highly Pathogenic Porcine Reproductive and Respiratory Syndrome (HP-PRRSV Infection).

Highly pathogenic Porcine Reproductive and Respiratory Syndrome is an acute and highly lethal disease caused by a variant strain of the Porcine Reproductive and Respiratory Syndrome virus (PRRSV). Its clinical symptoms are characterized by an extremely high mortality rate in piglets, ranging from 50% to 100% [18,19]. In one trial, piglets infected with HP-PRRSV exhibited a mortality rate of 21.25% when treated with Marecipe AV, compared to 60.62% in untreated animals. In a separate trial involving the post-exposure prophylaxis of piglets exposed to HP-PRRSV, no mortality was observed in the treated group, whereas the untreated group experienced a mortality rate of 94.37%. The findings demonstrate that Marecipe AV herbal therapy is highly effective against PRRSV, particularly when administered during the early stages of the disease.

## 2.5 Outcomes of Marecipe AV Herbal Therapy in the Treatment of Feline Panleukopenia (Feline Distemper).

Feline panleukopenia (FPL) is a highly contagious and life-threatening disease caused by the feline panleukopenia virus. Without treatment, survival rates are very low (less than 15%). Since there is no specific antiviral treatment for FPL, the therapeutic protocol typically focuses on fluid therapy and supportive care [20]. A case series describes the outcomes of using Marecipe AV in treating six kittens (aged <6 months) with FPL. All six kittens diagnosed with feline panleukopenia and treated with Marecipe AV survived. Notably, all treated cats achieved complete recovery and resumed normal activity within 5 to 7 days of Marecipe AV herbal therapy, with corresponding improvements in leukopenia and

neutropenia observed during the same period. This study is a retrospective case report involving only six therapeutic cases and lacks a control group. Therefore, such an evaluation should not be used to draw definitive pharmacodynamic conclusions [12].

### 3. Outcomes of Marecipe AV Herbal Therapy in Treating Viral Infectious Diseases in Poultry.

#### 3.1 Outcomes of Marecipe AV Herbal Therapy in the Treatment of Chickens and Ducks with Avian Influenza.

Highly pathogenic avian influenza (HPAI) is a significant zoonotic disease characterized by high morbidity and mortality rates, which can reach up to 100% in poultry [21].

**3.1.1** In chickens exhibiting clinical symptoms of confirmed avian influenza infection, the mortality rate was 33.34% in the group treated with Marecipe AV herbal medicine, compared with 98.33% in the untreated group. In the duck group, the mortality rate was 39% in the treated group, compared with 100% in the untreated group [14,16].

**3.1.2** In asymptomatic chickens exposed to the avian influenza virus (AIV), the mortality rate was 4.6% among those receiving post-exposure prophylaxis with Marecipe AV herbal medicine, as opposed to 85% in the untreated group. Similarly, among asymptomatic AIV-exposed ducks, mortality was 0.86% in the post-exposure prophylaxis group, compared to 99.83% in the untreated group [14,16].

In cases of avian influenza infection in poultry, the time from symptom onset to death is usually less than 6 hours. Given that most fatal cases occurred within 2 hours after treatment with Marecipe AV, before the drug had taken effect, the outcomes of Marecipe AV in chickens and ducks exhibiting avian influenza-like symptoms may not provide an accurate evaluation of its therapeutic efficacy. For effective management of avian influenza in poultry, initiating treatment prior to symptom onset is critical to achieving optimal therapeutic outcomes. Based on the findings, Marecipe AV herbal therapy can achieve complete control of avian influenza in poultry when administered during the early stages of the disease.

#### 3.2 Outcomes of Marecipe AV Herbal Therapy in the Treatment of Ostriches with Newcastle Disease (ND).

Newcastle disease (ND), triggered by the Newcastle Disease Virus (NDV), is a highly infectious avian disease with substantial economic impact, affecting various bird species. The mortality rates generally vary between 30% and 100%, depending on the viral strain involved [22].

Administration of Marecipe AV for 2 to 5 days resulted in the complete resolution of clinical symptoms in more than 90% of ostriches with naturally contracted NDV. There was no change in the growth status of any of the rehabilitated cases. The clinical remission rate reached 100% in the Marecipe AV treatment group, compared with 0% in the placebo group. It should be noted that this outcome is based on a study with a small sample size, involving only 30 treated cases. The findings suggest that Marecipe AV may have a therapeutic effect against Newcastle disease in ostriches; however, a conclusive evaluation of its efficacy cannot be established at this stage [12].

### 4. Outcomes of Marecipe AV Herbal Therapy in Treating and Preventing Viral Infectious Diseases in Fish.

Given that the method of administering Marecipe AV relies on fish actively consuming medicated feed, this treatment regimen fails to provide therapy for infected fish that have ceased feeding. Since symptomatic fish often stop eating once clinical signs appear, it is difficult to determine whether deceased individuals had ingested the medicated diet. This ambiguity complicates the evaluation of efficacy. For this reason, in all experiments conducted with Marecipe AV on fish, the treatment was administered during the early stages of the disease within the population.

**4.1 Outcomes of Marecipe AV Herbal Therapy in Treating Largemouth Bass Iridovirus (LMBV) Infection in Largemouth Bass (Scientific Name: *Micropterus salmoides*).** Largemouth bass iridovirus (LMBV) can cause high mortality and lead to significant economic losses in the cultivation of largemouth bass, and there is currently no effective treatment [23]. In the therapeutic trials of Marecipe AV herbal therapy for LMBV-infected Largemouth Bass in a real-world setting, the mortality rate was 1.2% in the Marecipe AV-treated group, compared to 72% in the placebo group. The mortalities in LMBV-exposed Largemouth Bass with post-exposure prophylaxis were 0.06% and 72% for treated and untreated fish, respectively. In a study on the use of Marecipe AV for treating ulcers and erosions in LMBV-associated largemouth bass, a 9-day regimen of Marecipe AV was shown to completely resolve ulcerative and erosive skin lesions in all treated cases of largemouth bass infected with LMBV. Given that this mode of treatment administration relies on the active ingestion of the medicated diet by fish, it is therefore effective only for infected individuals that maintain their feeding behavior. It does not confer therapeutic advantages to infected fish that have stopped feeding. In any case, there was a significant difference between the Marecipe AV-treated group and the placebo group, indicating the potential effectiveness of this herbal therapy in managing LMBV infections in Largemouth Bass.

#### 4.2 Outcomes of Marecipe AV Herbal Therapy in Treating Grass Carp Hemorrhagic Disease.

Grass carp hemorrhagic disease is a severe viral infection caused by the grass carp reovirus (GCRV), which belongs to the Reoviridae family. This disease primarily affects grass carp fingerlings and yearlings, with mortality rates reaching 60-90%, and in severe cases, even higher [24]. In several treatments for grass carp hemorrhagic disease, including those involving exposure to a GCRV environment, early prophylactic administration of Marecipe AV resulted in mortality rates of approximately 3% to 6%. In contrast, the placebo-treated groups exhibited mortality rates ranging from 80% to 95%. These findings demonstrate that Marecipe AV exerts a potent therapeutic effect against grass carp hemorrhagic disease.

#### 4.3 Outcomes of Marecipe AV Herbal Therapy in the Treatment of Koi Herpesvirus Disease (KHVD) in *Cyprinus carpio*.

Koi herpesvirus disease (KHVD) is a highly contagious viral infection caused by Cyprinid herpesvirus 3 (CyHV-3), commonly referred to as koi herpesvirus (KHV). KHVD is associated with extremely high mortality rates, with affected populations experiencing mortality rates that can reach 80-100%. Currently, there are no FDA-approved treatments or vaccines available for KHV infections [25,26]. In experimental treatments involving *Cyprinus carpio* infected with KHVD, the mortality rate in the Marecipe AV-treated group was 4.5%, compared to 82% in the placebo group. Among *Cyprinus carpio* exposed to CyHV-3 and receiving post-exposure prophylaxis, the mortality rate was just 0.2% in

the Marecipe AV-treated group, while the placebo group again showed a mortality rate of 82%. These findings demonstrate that Marecipe AV exhibits significant efficacy against Koi Herpesvirus Disease in Cyprinus carpio and can completely cure and control the disease when administered during the early stages of infection.

#### **4.4 Outcomes of Marecipe AV Herbal Therapy in the Treatment of Herpesviral Hematopoietic Necrosis Disease (HVHND) in Goldfish (Carassius auratus).**

Herpesviral Hematopoietic Necrosis Disease is a highly lethal viral infection affecting crucian carp, caused by Cyprinid herpesvirus 2 (CyHV-2). This disease is characterized by extremely high mortality rates, reaching 90-100% in affected populations. To date, no effective prophylactic measures or treatments are available for CyHV-2 infections in goldfish [27]. In the treatment of Carassius auratus infected with CyHV-2, early prophylactic administration of Marecipe AV herbal medicine resulted in a mortality rate of approximately 3% to 5%, while mortality in placebo-treated groups exceeded 95%, according to previous records. In an initial experiment, the mortality rate reached approximately 70%. Researchers concluded that these deaths were likely due to the infected fish's inability to ingest the medication, indicating that the drug's efficacy should not be assessed solely based on these outcomes.

The findings demonstrate that Marecipe AV herbal therapy exhibits significant therapeutic efficacy against Hematopoietic Organ Necrosis Disease in Carassius auratus. Although the current findings are based on practical applications rather than controlled experiments, they provide valuable insights into the potential of Marecipe AV in treating crucian carp hematopoietic organ necrosis disease.

### **5. Therapeutic Outcomes of Marecipe AV Herbal Therapy in Treating Chronic Viral Infectious Diseases.**

#### **5.1 Outcomes of Marecipe AV Herbal Therapy in the Treatment of Postherpetic Neuralgia (PHN).**

Postherpetic neuralgia (PHN) is the most common long-term complication resulting from the reactivation of the varicella-zoster virus (VZV). Currently, there is no satisfactory treatment available for PHN. The most effective approaches tend to be multi-modal, with some researchers and clinicians emphasizing prevention in high-risk populations rather than seeking a cure, due to the debilitating and often refractory nature of PHN in already vulnerable patient groups [28,29]. In a study involving 30 patients treated with Marecipe AV, all individuals reported pain relief within 3 to 15 days post-treatment, with no cases of treatment failure documented in the outpatient records. Furthermore, none of the treated patients experienced a recurrence of pain after discontinuing the treatment. These outcomes indicate that Marecipe AV demonstrates potent therapeutic efficacy against PHN, achieving a remarkable cure rate of 100%. Despite the encouraging results, the present study has several notable limitations. These include the inherently subjective nature of pain as a clinical endpoint, variability in baseline pain levels among participants, the lack of a control group, and a limited sample size. Therefore, further prospective clinical trials are necessary to comprehensively evaluate the efficacy of Marecipe AV for the treatment of PHN.

#### **5.2 Outcomes of Marecipe AV Herbal Therapy in Treating Female Patients with Genital Warts Related to Human Papillomavirus (HPV) and Cervical Erosion.**

Human papillomavirus (HPV) is the primary causative agent of wart infections. While warts can be treated through various methods, including topical medications and physical excision via cryotherapy, electrocautery, lasers, or photodynamic therapy, this investigation focused on a therapeutic regimen combining oral intake of Marecipe AV medication with the external application of a Marecipe AV soaking solution over a 20-day treatment period [30,31,32,33]. The administration of Marecipe AV herbal medicine led to complete regression of HPV-related genital warts in all 10 patients within the 20-day treatment period. Additionally, among a cohort of patients presenting with both cervical erosion and genital warts associated with HPV infection, complete resolution of cervical lesions was observed in all 10 cases following treatment. HPV was undetectable in all three post-treatment samples.

It is important to note that these findings are based solely on clinical observations of 20 cases and lack a negative control; thus, it is inappropriate to draw definitive conclusions regarding the therapeutic effect based on these results. The observed virological conversion from HPV-positive to HPV-negative suggests that Marecipe AV herbal therapy may have the potential to eliminate HPV in vivo. Furthermore, this therapeutic approach might effectively eradicate all lesions, including subclinical ones that are often difficult to detect. In this regard, it offers a significant advantage over current mainstream local physical treatments for this condition.

#### **5.3 Outcomes of Marecipe AV Herbal Therapy in the Treatment of Patients with Chronic Hepatitis B.**

Chronic Hepatitis B (CHB) is the most prevalent chronic viral infectious disease in Asia. The primary therapeutic goal for CHB is to achieve a clinical cure, also referred to as a functional cure. This is defined as the sustained loss of hepatitis B surface antigen (HBsAg), accompanied by undetectable serum HBV-DNA levels and the normalization of liver function. It is important to note that the findings presented here are based on an analysis of outpatient records rather than a prospective clinical study [34,35]. An analysis of data from a cohort of 91 patients with abnormal HBV-DNA levels and associated viral markers revealed significant results. At 4 weeks following the administration of Marecipe AV, 59 out of 91 patients achieved HBV DNA levels below the detection threshold. By 8 weeks post-intervention, all treated patients exhibited HBV DNA levels below the detection limit, and serum biomarkers HBsAg and HBeAg had converted from positive to negative. Clinical cure of CHB, defined as sustained negativity for HBV DNA and serum biomarkers, was achieved in 18 patients with advanced hepatitis B-related hepatocellular carcinoma and in 7 patients with decompensated hepatitis B-related cirrhosis. In a subgroup analysis of patients who underwent treatment for less than 2 to 3 months, more than half exhibited re-detection of HBV DNA at the 6-month post-treatment follow-up. Overall, the clinical cure rate (referred to as functional cure) for patients with CHB following Marecipe AV herbal therapy was 77.27%, compared to approximately 59.1% with combination treatment using nucleoside analogs and polyethylene glycol interferon-alpha [36,37,38]. In conclusion, Marecipe AV herbal therapy demonstrates efficacy in suppressing HBV replication in vivo, although it does not achieve complete viral eradication.

In vitro studies have shown that the Marecipe AV extract can eliminate both HBV-DNA and HBsAg within 72 hours.

#### 5.4 Outcomes of Marecipe AV Herbal Therapy in the Treatment of Cats with Feline Acquired Immunodeficiency Syndrome (FAIDS).

Feline Immunodeficiency Virus (FIV) leads to progressive immune dysfunction in cats, analogous to the effects of human immunodeficiency virus (HIV) in humans. This virus is responsible for Feline Acquired Immunodeficiency Syndrome (FAIDS). While combination antiretroviral therapy (cART) has proven effective against HIV, there is currently no definitive treatment available to improve clinical outcomes for cats infected with FIV [39]. In an analysis of outpatient medical records, five cats suspected of having FAIDS were treated with the Marecipe AV herbal therapeutic regimen. During physical examinations, all five cats exhibited lymph node enlargement and tested positive for elevated FIV titers, as confirmed by quantitative polymerase chain reaction (qPCR). A treatment course of Marecipe AV lasting between 7 to 20 days resulted in complete clinical remission for all treated cats, with full resolution of clinical symptoms including anorexia, fever, and fluid accumulation. Efficacy was substantiated by measurable regression of lymph nodes in each case, along with a reduction of FIV viral loads to nearly undetectable levels following treatment. Although the sample size is limited to just five cases, the rapid alleviation of FIV-related symptoms observed after treatment is noteworthy. These findings may provide valuable insights for the treatment of human HIV infection.

#### 5.5 Outcomes of Marecipe AV Herbal Therapy in the Treatment of Cats with Feline Infectious Peritonitis (FIP).

Feline Infectious Peritonitis (FIP) is a common and highly lethal coronavirus disease affecting domestic cats. Historically, FIP has been one of the most feared feline diseases; however, the introduction of antiviral therapies, particularly GS-441524 and its analogues, has significantly improved the prognosis for affected cats [39]. In therapeutic investigations of Marecipe AV for FIP, none of the 38 cats infected with the disease died after receiving 7 to 9 days of treatment with Marecipe AV herbal therapy. The mortality rate in the Marecipe AV treatment group was 0%, while the untreated control group exhibited a mortality rate ranging from 95% to 100% (data for the untreated group were obtained from published sources). A treatment course of 3 to 7 days with Marecipe AV resulted in complete remission for the majority of FIP cases, including those in critical condition. One limitation of this study is the absence of follow-up observations to assess the recurrence of FIP following short-term treatment with Marecipe AV herbal therapy. Compared to GS-441524, Marecipe AV presents several distinct advantages in the treatment of FIP. Notably, Marecipe AV herbal therapy achieved a higher cure rate of 100%, compared to 85% for GS-441524. Additionally, the treatment duration for Marecipe AV is significantly shorter, lasting only 5 to 7 days, in contrast to the standard 84-day treatment course required for GS-441524 [40].

#### 5.6 Outcomes of Marecipe AV Herbal Therapy in the Treatment of Chronic Gingivitis-Stomatitis (FCGS) in Calicivirus-Positive Cats.

Feline Chronic Gingivostomatitis (FCGS) is a severe inflammatory syndrome primarily caused by oral infection with feline calicivirus (FCV), rather than by bacterial infection. This condition is particularly challenging to manage, as many reported treatments for FCGS have proven ineffective [41,42]. The results of treatment with Marecipe AV indicate that this herbal remedy is an effective option for FCGS in cats,

achieving an impressive clinical remission rate of 100%. Specifically, all 62 cats treated with Marecipe AV monotherapy reached clinical remission, with complete resolution of clinical signs and symptoms associated with FCV, such as drooling and tearing, occurring within 7 to 15 days of treatment. A significant reduction in viral load was observed by day 15 post-treatment, with a mean Ct value of 33.87 (approaching the detection limit) compared to a baseline value of 23.90 in all treated cases. However, high recurrence rates were noted; specifically, among mild to moderate cases, the recurrence rate reached 83.33% at three months. In a subgroup of cats that underwent three retreatments with Marecipe AV, the recurrence rate at six months was 28.57% [43].

Marecipe AV herbal therapy has demonstrated therapeutic benefits in the management of FCGS in calicivirus-positive cats. Its primary mechanism appears to involve reducing viral load and rapidly alleviating viral inflammation, thereby facilitating clinical recovery. However, a notable limitation of Marecipe AV is that it does not completely eradicate the virus within a short time frame, resulting in a relatively high recurrence rate.

#### 5.7 Outcomes of Marecipe AV Herbal Therapy in the Management of Ulcerative and Erosive Lesions Associated with Largemouth Bass Iridovirus (LMBV) in Largemouth Bass.

Largemouth bass iridovirus (LMBV) infection is characterized by significant clinical manifestations, including extensive ulceration on the fish's body, necrosis of exposed muscles, and bleeding. These ulcerative and erosive lesions do not resolve spontaneously, and to date, there have been no documented cases of successful treatment for such conditions [44]. Oral administration of Marecipe AV resulted in an 80% clinical remission rate in largemouth bass exhibiting ulcers and erosions associated with LMBV. The cause of death in treated fish was due to the loss of the ability to breathe, resulting from the detachment of gill lesions after 2 to 3 days of treatment. It is noteworthy that a 5- to 10-day course of Marecipe AV herbal medicine promotes the healing of ulcers and erosions associated with LMBV in all cases, even in those with severe tissue damage. It should be emphasized that the healing of ulcers and erosions occurs with remarkable rapidity, at a rate that substantially exceeds the conventional understanding of ulcer repair. After one month of treatment, all ulcers and erosions in the affected fish had completely resolved, with no adverse effects on their market quality [12]. Based on the results mentioned above, Marecipe AV herbal therapy has demonstrated satisfactory therapeutic effects on viral infectious diseases, particularly on multiple acute and fatal viral infections. Given the historical absence of effective therapeutic interventions for viral infectious diseases, validating any new treatment necessitates particularly robust evidence. To establish such evidence, researchers have selected highly fatal viral infections for efficacy studies. In these cases, death serves as the sole outcome for infected subjects, and the mortality rate remains unaffected by confounding variables. Therefore, changes in mortality provide an excellent and unbiased measure of therapeutic efficacy. Viral diseases such as African swine fever, porcine reproductive and respiratory syndrome, Newcastle disease, avian influenza, canine distemper, canine parvovirus infection, feline panleukopenia, koi herpesvirus disease, herpesviral hematopoietic necrosis disease, grass carp hemorrhagic disease, and largemouth bass ranavirus are associated with mortality rates approaching 100%. Marecipe AV herbal therapy has reduced the mortality rate associated with these diseases from nearly 100% to virtually zero, indicating a 100% cure rate. The application of

Marecipe AV herbal therapy has completely transformed the previously inevitable outcome of death in certain fatal infectious diseases. These findings provide robust evidence supporting the efficacy of Marecipe AV herbal medicine in treating viral infectious diseases. Evidence suggests that early administration of Marecipe AV can lead to the complete resolution of acute viral infections within a short timeframe. This study reports that post-exposure prophylaxis with oral Marecipe AV provides complete protection against several viral diseases. Specifically, a 0% incidence rate was recorded for COVID-19-related fever in populations exposed to SARS-CoV-2, African swine fever (ASF) in ASFV-exposed swine, and infections of canine parvovirus (CPV) and canine distemper virus (CDV) in dogs exposed to these pathogens. Furthermore, in a high-risk model of Largemouth Bass Virus (LMBV) exposure in largemouth bass, the mortality rate was 0.06% in the prophylactically treated group compared to 72% in the untreated control group. Previous research has indicated that exposure to environments contaminated with highly contagious viruses can result in infection rates and morbidity approaching 100%. These results collectively demonstrate that Marecipe AV, when administered as a prophylactic intervention, confers substantial protective efficacy against highly contagious viral diseases. A key implication of these findings is their significant practical utility. Marecipe AV herbal remedies exhibit potent pharmacological activity against acute viral infections. The findings indicate that fever symptoms associated with SARS-CoV-2 can be alleviated within 24 hours of administering Marecipe AV. Furthermore, the use of Marecipe therapeutics has the potential to terminate the clinical course of mild to moderate COVID-19 in all patients treated within a 48-hour window. A 5- to 7-day course of Marecipe AV therapy may lead to resolution in swine exhibiting severe ASF-like symptoms, while a 2- to 5-day course may result in resolution in all treated dogs with severe CPV-like symptoms. Additionally, the healing of ulcers and erosions occurs remarkably rapidly in largemouth bass infected with LMBV. These findings suggest that Marecipe AV possesses exceptionally potent pharmacological effects against acute viral infections. Marecipe AV herbal remedies demonstrate potent therapeutic efficacy against viral infections across a diverse array of species, including humans, pets, birds, and fish. Complete clinical recovery was achieved in all cases of treated viral diseases, with no reported instances of treatment failure. Marecipe AV exhibits broad-spectrum antiviral activity against multiple viral pathogens with various genomic structures, including Herpes Zoster (double-stranded DNA), Canine parvovirus (single-stranded DNA), COVID-19 (positive-sense single-stranded RNA), influenza (negative-sense single-stranded RNA), and Grass carp hemorrhagic disease (double-stranded RNA), among others. Marecipe AV demonstrates therapeutic efficacy against chronic viral infectious diseases; however, its viral clearance effect in this context remains to be elucidated. Administration of Marecipe AV resulted in a rapid reduction of both clinical symptoms and viral load across various chronic viral infections. The most compelling evidence of therapeutic effect is the swift resolution of pain following treatment for postherpetic neuralgia. In the management of chronic viral diseases, such as HPV-associated infections, FAIDS, chronic hepatitis B (CHB), and FCGS, progressive viral clearance has been observed. While a significant decrease in viral load was noted in FCV-positive cats with FCGS after receiving Marecipe AV, feline calicivirus (FCV) remained detectable in most subjects after three months of therapy. Similarly, in dogs identified as carriers of the canine distemper virus, a two-month regimen of Marecipe AV therapy did not achieve complete viral clearance. These findings indicate that Marecipe AV does not achieve complete viral clearance in chronic viral infections.

The pharmacological effect of Marecipe AV herbal therapy in these cases is primarily viral inhibition rather than eradication. The long-term therapeutic efficacy of Marecipe AV in managing certain chronic viral infections remains to be fully elucidated. Further investigation is warranted to assess the therapeutic efficacy of Marecipe AV in viral infections associated with neurological impairment. While Marecipe AV herbal therapy shows significant efficacy in managing postherpetic neuralgia (PHN), it fails to provide symptomatic relief for convulsions in approximately 50% of canine distemper cases exhibiting neurological manifestations. Notably, nearly all fatalities occurred in dogs presenting convulsive symptoms due to canine distemper. Thus, the efficacy of Marecipe AV herbal therapy in treating viral-induced neuroinflammation requires further research for clarification. Importantly, Marecipe AV herbal medicine is associated with no severe toxic side effects. Its potent detoxifying effect is particularly noteworthy, as it remains entirely free of adverse effects. The antiviral pharmacological mechanism of action of Marecipe AV therapeutics has yet to be elucidated. In light of the current scarcity of effective therapeutic agents for viral infectious diseases, along with the potent efficacy of Marecipe AV against these conditions, it is plausible that Marecipe AV exerts its effects through mechanisms that differ from conventional antiviral pathways. Marecipe AV is formulated from powdered extracts of four botanical species and a rare freshwater fish. Mass spectrometry analysis has identified the principal components of Marecipe AV as follows: betaine (22.34%), rosmarinic acid (17.41%), isoorientin (11.41%), linolenic acid (8.83%), caffeic acid (4.54%), cichoric acid (4.34%), sucrose (4.08%), Vizenin III (2.30%), citric acid (2.02%), and azelaic acid (1.82%) [10]. A review of the scientific literature regarding these principal components revealed no established correlation with antiviral effects. In an unpublished study, an improved formulation of Marecipe AV showed no direct antifungal activity in bacteriostasis experiments. Conversely, serum obtained from subjects two hours after oral administration of Marecipe AV exhibited significant inhibitory activity against the same fungal strains, an effect not observed in untreated control serum or in the extract from the improved formulation. These findings suggest that the antifungal effect of Marecipe AV may be mediated by a novel active substance produced following oral ingestion. Another experiment also supports this inference. Exposure of Largemouth Bass with pathogenically induced viral skin ulcers to a high concentration of Marecipe AV did not result in any improvement in the dermal lesions. In contrast, oral administration of Marecipe AV to Largemouth Bass infected with LMBV led to a marked improvement in the dermal ulcers observed on the fish. The effects of Marecipe AV extract on viral pathogens have yielded inconsistent results in vitro. In most assays, the extract demonstrated negligible direct antiviral activity, including no inhibitory effect against SARS-CoV-2. However, it was noted that Marecipe AV extract could completely eliminate the hepatitis B virus in cultured cells within 72 hours. The variability in in vitro experimental outcomes complicates the extraction of reliable or useful insights for elucidating the mechanism of action. The primary pharmacological action of Marecipe AV herbal medicine appears to involve the suppression of virus-associated inflammatory responses rather than viral eradication, although viral inhibition was observed in all treatment conditions. Analysis of therapeutic outcomes for canine parvovirus and distemper revealed that, while clinical symptoms resolved completely in most cases after 3–5 days of Marecipe AV treatment, a relatively high viral burden persisted in the affected animals at this stage. In a case series study of Marecipe AV for FCGS, it was noted that while severe symptoms improved within 3 to 5 days of treatment, high levels of

calicivirus remained detectable on the seventh day. These findings suggest that the pharmacological effects of Marecipe AV extend beyond merely clearing the virus, primarily achieving efficacy by alleviating virus-related inflammation. Marecipe AV exhibits a virus-specific therapeutic mechanism, demonstrating high selectivity against viral pathogens with no discernible activity against bacterial targets. While it shows substantial efficacy in managing virus-induced inflammation, Marecipe AV has negligible effects on inflammatory responses triggered by bacterial pathogens. Clinical observations indicate that in dogs suffering from concurrent bacterial pneumonia during Canine Distemper or Canine Parvovirus Enteritis, treatment with Marecipe AV alone is insufficient to alleviate inflammatory symptoms. The resolution of bacterial pneumonia symptoms relies on the administration of appropriate antibiotic treatment. In fish treatment experiments, oral Marecipe AV did not demonstrate any therapeutic effect on ulcers and erosions on the body surface caused by bacterial or fungal infections. These findings collectively indicate that the therapeutic effect of Marecipe AV is specifically targeted at viral infections. The primary site of action for Marecipe AV appears to be the initial interface between the viral particle and the host's inflammatory response.

## Limitations

A significant limitation of these studies is that the evidence is derived not from prospectively conducted clinical trials under rigorous oversight, but primarily from retrospective analyses of outpatient records. The lack of data from prospective, randomized, double-blind, placebo-controlled trials substantially compromises the evaluation of therapeutic efficacy, particularly concerning chronic viral infectious diseases. Additionally, inadequate sample sizes in certain trials represent a methodological flaw that undermines the reliability of conclusions drawn from such limited datasets. Due to the lack of an effective method for administering the drug to the pigs, most subjects in the first experiment did not receive adequate doses and, as a result, were not properly treated. This led to a deviation in the observed mortality rate. The existing data on its efficacy in treating and preventing viral infectious diseases appears too perfect to be consistent with established scientific principles. Therefore, these promising findings must be interpreted with considerable caution. A key limitation of the current research is the insufficient exploration of the mechanism of action of the MA recipe AV herbal medicine. However, elucidating this mechanism is essential, as it would support the development of treatments for viral infectious diseases and contribute to their eventual control. Marecipe AV herbal medicine serves as a valuable tool for investigating this promising pathway. This review represents the first systematic synthesis of evidence on the efficacy of this herbal therapy for both treating and preventing diverse viral infections across multiple species in real-world settings, thereby bridging a critical gap in the field. It establishes a robust evidence base to inform future research and potential clinical translation.

## Conclusions

A compelling body of evidence positions Marecipe AV herbal therapy as a breakthrough treatment, demonstrating potent and satisfactory efficacy against viral infections across diverse host species and various viral genomes. Specifically, early administration during the initial phase of a viral infection or as post-exposure prophylaxis may enable the curative and complete control of most acute viral infections. This approach could catalyze a paradigm shift in antiviral therapy, moving beyond the current

lack of options and opening a viable path toward overcoming these diseases.

## Abbreviations

The following abbreviations are used in this manuscript:

**COVID-19** Coronavirus Disease 2019

**SARS-CoV-2** Severe Acute Respiratory Syndrome Coronavirus 2

**TCM** Traditional Chinese medicine

**CD** Canine distemper

**CDV** Canine distemper virus

**CPV** Canine distemper, canine parvovirus

**ASF** African Swine Fever

**ASFV** African swine fever virus

**HP-PRRSV** Highly pathogenic Porcine Reproductive and Respiratory Syndrome

**PRRSV** Porcine Reproductive and Respiratory Syndrome virus

**FPL** Feline panleukopenia

**HPAI** Highly pathogenic avian influenza

**AI** Avian influenza virus

**ND** Newcastle disease

**NDV** Newcastle disease Virus

**LMBV** Largemouth bass iridovirus

**GCRV** Grass carp reovirus

**KHVD** Koi Herpesvirus Disease

**CyHV-3** Cyprinid herpesvirus 3

**KHV** Koi herpesvirus

**HVHD** Hematopoietic Necrosis Disease

**CyHV-2** Cyprinid herpesvirus 2

**PHN** Postherpetic Neuralgia

**VZV** Varicella-zoster virus

**HPV** Papillomavirus

**CHB** Chronic hepatitis B

**HBV** Hepatitis B Virus

**HBsAg** Hepatitis B surface Antigen

**FAIDS** Feline Acquired Immunodeficiency Syndrome

**FIV** Feline Immunodeficiency Virus

**HIV** Human immunodeficiency virus

**qPCR** quantitative polymerase chain reaction

**FIP** Feline Infectious Peritonitis

**FCGS** Feline chronic gingivostomatitis

**FCV** Feline calicivirus

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DOI:[10.31579/2690-4861/1046](https://doi.org/10.31579/2690-4861/1046)

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