

## **Tried and Tested Preventative and Treatment Medication for Coronavirus COVID-19 Infection**

It is becoming clear that the COVID-19 outbreak in Hubei, China, is now coming under control and this is thanks in no small part to the integrated use of Traditional Chinese Medicine. Western media has wisely examined the practices used in China to control the virus spread, learning from both successes and failures, but has tended to ignore the successes around traditional medicine as this does not overtly lend itself to scientific analysis. However, this treatment is not to be ignored as it carries with it extensive experience at the coal face, and no risk, as the relevant herbal medicine is animal free and already in use for other therapeutic purposes in the UK. The following article by learned and experienced Dr. Tiejun Tang of Harley Street, and myself, discusses the efficacy of Yupingfeng San (YPF) as tried and tested in the current COVID-19 outbreak.

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**YuPingFeng San (YPF) is available in tablet form from Acu-Synergy**

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<p>Our Chinese Herbal Extracts are from Taiwan, formulated in the UK for Acu-Synergy Ltd.</p> <ul style="list-style-type: none"><li>• ISO 9001 certificated for quality assurance</li><li>• Approved by NHS for clinical study</li><li>• American Specialty Health Project certificated</li><li>• Certificated by Japanese Health Insurance</li><li>• PIC/S GMP certification from Therapeutic Good Administration of Australia</li></ul>		

### **Why this formula can be used to prevent and treat coronavirus infection?**

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#### **Abstract**

YPF is a natural immune enhancer. Its immunoregulatory function can prevent viral infection. The anti-inflammatory and antiviral function can block the cytokine storm reaction of coronavirus pneumonia. The anti-asthma effect can release the shortness of breath. The anti-pulmonary fibrosis effect can reduce the pulmonary fibrosis in the severe stages. Based on the above research evidence I highly recommend a modified YPF for prevention and treatment of novel coronavirus pneumonia.

## Background

The epidemic of coronavirus is gradually getting under control recently in China. Chinese herbal medicine played a very important role in this battle against novel coronavirus in China. More than 85% of patients received herbal medicine treatment. Because the involvement of Chinese herbal medicine the cure rate was significantly increased and mortality rate significantly decreased.

The infection rate of coronavirus is increasing recently in Europe. Up to today over 4500 cases were diagnosed in Europe and 87 cases in the UK. It is estimated that this number will continue to increase in the near future. Can we introduce the treatment experience of China to fight the novel coronavirus in Europe? Unfortunately Chinese medicine hasn't got involved in the coronavirus treatment in Western countries. I think the main reason is because the majority of people and their governments do not believe in the effect of Chinese medicine. They believe Chinese medicine doesn't have enough scientific evidence. In this paper I would like to introduce Yupingfeng San which is widely used in China since the Yuan dynasty (1271 AD) to build up healthy Qi and to prevent invasion of external evils. In Chinese “*Yupingfeng*” mean jade screen and “*San*” mean powder. I don't need to discuss the detailed history of this classic formula and treatment mechanism in term of traditional Chinese medicine. Let's review some pharmacological research reports and randomized controlled clinical trials of Yupingfeng San (YPF). There are several hundred papers published about this formula. I only include the publications of recent years in English academic journals.

### 1. Immunoregulatory and anti-inflammatory function

To observe the Immunoregulatory and anti-inflammatory effects of YPF, Song J. applied YPF to treat a rat chronic bronchitis model. The results showed that the inflammation in the pulmonary tissue and the bronchus of rats was significantly reduced in the treatment groups. In serum samples collected at different times from rats after administration of YPF, the result demonstrated increased proliferation of splenic lymphocytes within the area under the effect curve. Treatment of alveolar macrophages with serum samples in YPF group inhibited interleukin-8 (IL-8) in the cell culture media, and the effect was much better in the YPF<sup>[1]</sup>. To investigate the immunomodulating mechanism of YPF, a study compared the immunomodulatory activity in vitro of the unfermented Yupingfeng dreg polysaccharides (UYDP) with that of the fermented Yupingfeng dreg polysaccharides (FYDP) obtained using *Rhizopus oligosporus* SH. Results consistently elucidated the duality of the immunomodulatory roles of UYDP and FYDP in regulating proliferation, and cytokines expressions in murine lymphocytes and macrophages. Compared with UYDP, FYDP effectively enhanced the proliferation of lymphocytes and promoted mRNA expression of inducible nitric oxide

synthase (iNOS), IL-6, TNF- $\alpha$ , INF- $\gamma$ , nuclear factor kappa-light-chain-enhancer of activated B cells (NF- $\kappa$ B), and TLR-4 in lymphocytes and macrophages. Moreover, compared with UYDP, FYDP effectively normalized cell proliferation and downregulated mRNA expression levels of pro-inflammatory cytokines, NF- $\kappa$ B, TLR-4, and iNOs in lipopolysaccharide-induced chronic inflammation cells. The results revealed that immunomodulatory effects in vitro of UYDP and FYDP are bidirectional. <sup>[2]</sup>.

## **2. Anti-virus effect function**

To investigate the antiviral effect of YPF, Liu Q. applied real-time RT-PCR and western blotting technique to detect influenza virus (IFV) and the human respiratory syncytial virus (HRSV). The result showed YPF extract inhibited both IFV and HRSV in a dose-dependent manner when given before, during and after a viral infection. YPF was effective in blocking the entry of the virus. Furthermore, pre-treatment with YPF reduced the susceptibility of cells to the invasion of HRSV by inhibiting the expression of ICAM-1. Importantly, YPF extract increased the survival rate of lethal influenza-infected mice, prolonged the survival time and alleviated the virus-induced lung lesions, which is comparable with the effects of ribavirin treatment <sup>[3]</sup>.

## **3. Anti-asthma function**

To detect anti-asthma effect of YPF, [Wang Z](#) applied flow cytometry technique to detect Tregs and Th17 cells in bronchoalveolar lavage fluid, and use ELISA assay to detect IL-4, TGF- $\beta$ , and TNF- $\alpha$  in the serum of asthma model of mice. The result indicated that YPF could alleviate the inflammation in the lung tissue of mice, decrease the proportion of Th17 cells, and increase the proportion of Treg cells in bronchoalveolar lavage fluid, it could decrease IL-4 and TNF- $\alpha$  level and increase TGF- $\beta$  level in blood <sup>[4]</sup>. [Liu X](#) applied network pharmacology to explore potential mechanism of YPF on asthma. . *In vitro* experiments showed that YPF significantly decreased the production of TNF- $\alpha$  and IL-6, as well as both mRNA and protein levels of IL-1 $\beta$ , NLRP3, Caspase-1 and ASC in LPS-stimulated U937 cells. *In vivo* experiment indicated that YPFS treatment not only attenuated the clinical symptoms, but also reduced inflammatory cell infiltration, mucus secretion and MUC5AC production in lung tissue of asthmatic mice. Moreover, YPFS treatment remarkably decreased the mRNA and protein levels of IL-1 $\beta$ , NLRP3, Caspase-1 and ASC in lung tissue of asthmatic mice. These results demonstrated that YPF could inhibit NLRP3 inflammasome components to attenuate the inflammatory response in asthma <sup>[5]</sup>.

## **4. Anti pulmonary fibrosis**

[Li L](#). applied total extract of YPF attenuates bleomycin-induced pulmonary fibrosis in rats. The result showed YPF treatment attenuated the alveolitis and fibrosis induced by

bleomycin, reduced the loss of body weight and increase of lung coefficient. Meanwhile, YPF strongly decreased the levels of hydroxyproline and type I collagen, and reduced the over-expression of high-mobility group box 1 (HMGB1), transforming growth factor-beta 1 (TGF- $\beta$ 1), Col-I and  $\alpha$ -smooth muscle actin ( $\alpha$ -SMA). YPF could ameliorate lung fibrosis by alleviating HMGB1 activity and TGF- $\beta$ 1 activation [6]. [Cui W](#) applied the total glycoside of Yupingfeng (YPF-G) to treat pulmonary fibrosis, the result found that both dose of YPF-G markedly reduced bleomycin-induced alveolitis and pulmonary fibrosis in rats. Besides, the levels of HMGB1, laminin, hyaluronic acid, and hydroxyproline were effectively reduced. Meanwhile, the increased protein expression of HMGB1 and the mesenchymal markers including vimentin and alpha-smooth muscle actin, and the decreased protein expression of epithelial marker E-cadherin were dramatically inhibited after YPF-G treatment [7].

## 5. Clinical randomized controlled trials

A meta-analysis aimed to evaluate the immunomodulating function of YPF in children with recurrent respiratory tract infections. Twelve trials with 1236 patients were identified. Adjuvant treatment with YPF significantly increased serum levels of IgA, IgG, IgM and CD3(+) T-lymphocytes. YPF also reduced the frequency of recurrent respiratory tract infections and increased total effective rates of symptom improvement. Adjuvant treatment with YPF could improve total clinical effective rate and decrease the frequency of respiratory tract infections in children [8]. A randomized, double-blind, parallel, placebo-controlled study analysed 240 patients from eight centres in China. Participants were eligible if they had mild to severe chronic obstructive pulmonary disease (COPD). They were randomly assigned to receive 5g of YPF or placebo, three times per day, for 1 year. The result showed The YPF group had a significantly lower exacerbation rate than the placebo group and a significantly reduced risk of second exacerbation. After treatment, the mean change in the COPD assessment test (CAT) score in the YPF group differed significantly from that in the placebo group [9].

In the article I published a few weeks ago, I mentioned a modified YPF decoction was used to prevent SARS of 2003 in Hong Kong. It significantly reduced infection rate of SARS in medical staff [10].

Novel coronavirus 2019 is different from SARS but has many similarities. In early stage symptoms of novel coronavirus pneumonia are cough, fever and shortness of breath. In the severe stage it will lead to pulmonary fibrosis which is proved by autopsy.

YPF is a natural immune enhancer. Its immunoregulatory function can prevent viral infection. The anti-inflammatory and antiviral function can block the cytokine storm reaction of coronavirus pneumonia. The anti-asthma effect can release the shortness of

breath. The anti pulmonary fibrosis effect can reduce the pulmonary fibrosis in the severe stages. Based on the above research evidence I highly recommended a modified YPF for prevention and treatment of novel coronavirus pneumonia.

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