Clinical features and treatment analysis of 173 patients with diffuse pulmonary parenchymal disease

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Abstract: Objective Investigation of the incidence, clinical features and treatment of diffuse pulmonary parenchymal disease (DPLD). **Methods** 173 cases of patients with DPLD admitted in our hospital from June 2005 to June 2011, analysis of the incidence and clinical features, and treatment are divided into simple conventional hormone therapy group (n = 58), the impact of hormone therapy group (57 cases) and the impact of hormone combined with UTI D group (n = 58), observe the clinical efficacy of three groups. **Results** simple conventional hormone therapy group effective rate was 87.9%, the impact of hormone treatment group was 87.7%, Impact of hormone combined with UTI D group was 81.0%. There was no significant of comparison of the efficiency from three groups of the treatment (P <0.05). **Conclusion** onset of diffuse pulmonary parenchymal disease is insidious and etiology is complicated. Velero rales, clubbing, white blood cell count change, elevated CRP and varying degrees of dysfunction of pulmonary diffusion of interstitial lung disease have a certain diagnostic valueElevated CRP and dysfunction of varying degrees of pulmonary diffusion of interstitial lung disease have a certain diagnostic value. The glucocorticoid treatment Ulinastatin have a certain effect. The glucocorticoid treatment Ulinastatin has a certain effect.

[Ling Meng. **Clinical features and treatment analysis of 173 patients with diffuse pulmonary parenchymal disease.** *Life Sci J* 2013;10(2):1597-1599].(ISSN:1097-8135).http://www.lifesciencesite.com. 219

Keywords: diffuse pulmonary parenchymal disease; hormone; C-reactive protein

Diffuse pulmonary parenchymal disease (DPLD) refers to acute and chronic pulmonary parenchymal disease caused by alveolar wall, alveolar space varying degrees of cellulose and inflammatory exudate, the development of diffuse pulmonary interstitial fibrosisof the disease [1]. Its insidious onset, etiology is complex, atypical clinical manifestations, the most common clinical manifestations of progressive dyspnea, increased after the event, dry cough, fatigue, a clear diagnosis and treatment were some difficulties when pulmonary infection in when the prognosis is poor, can lead to recurrent disease, lung function damage, severe respiratory failure, and even death [2]. This study to analyze the our hospital DPLD patients the incidence and clinical features, in order to improve early clinical diagnosis and treatment of disease, the results reported below.

1 Materials and Methods

1.1 General information: patients admitted in our hospital from June 2005 to June 2011 DPLD 173 cases, 97 cases were male, female 76 cases. Aged 21 to 93 years, mean age (51.3 ± 12.6) years. The selected patients causes, symptoms, signs, and related inspection diagnosed as DPLD. All patients with an average duration of less than 30 days, no obvious incentive, progressive difficulty in breathing after the activity or the original worsening dyspnea, and with varying degrees of fever, sputum, cough.

1.2 treatment: patients according to the different treatment modalities were divided into three conventional hormone therapy group (n = 58), oral administration of 0.75 to 6.0mg dexamethasone, 1/2 to 4 times daily; steroid pulse therapy group (n = 57), intravenous infusion of 1.0 g of methyl prednisolone 5% glucose 250ml, 1 times / day, continuous treatment for 3 days, given orally 100 mg of prednisone; steroid pulse the United ulinastatin group (n = 58)100 mg of prednisone, intravenous infusion of 1.0 g of methyl prednisolone +5% glucose 250mL, 1 times / day, continuous treatment for 3 days, given orally, intravenous infusion of l0 million units ulinastatin small +5.0% glucoseinjection 500ml, 1 ~ 2h /, 1 to 3 times / day.

1.3 efficacy assessment: patients based on clinical symptoms, signs, and laboratory parameters on patient outcomes assessment, evaluation criteria:

1) Abdominal crackles significantly reduce or disappear. 2) the disease was good early, difficulty breathing eased significantly. 3) arterial blood gas analysis indicators improved significantly. 4) pulmonary diffusion function improved or returned to normal. 5) lung imaging significantly improved. Meet the above criteria after 2 weeks of treatment in patients with 2 or more than 2 means that treatment is effective, and vice invalid.

1.4, the statistical analysis: Data analysis using SPSS 13.0 software package, data were analyzed by x2 test, P <0.05 was considered statistically significant.

2 Results

Patients were used in three different ways for

treatment, of which only conventional hormone therapy group was 87.9%, the impact of hormone treatment group was 87.7%, the impact of hormone the United Ulinastatin his small group was 81.0%, three groups of patients treatedefficient contrast the difference was not statistically significant (P <0.05). Table 1.

Table 1: comparison of treatment efficacy of diffuse pulmonary parenchymal disease

Groups	Number of cases (for example)	Effective	Invalid	Efficiency (%)
Simple conventional hormone therapy group	58	51	7	87.9%
The impact of hormone treatment group	57	50	7	87.7%
The impact of hormone the United Ulinastatin group	58	47	11	81.0%

3 Discussion

Under normal circumstances, interstitial lung mere existence of a small number of macrophages, fibroblasts and myofibroblasts cells. In the process of diffuse pulmonary parenchymal disease lesions, alveolar spaces with varying degrees of inflammation, fibrosis, alveolar - capillary basement membrane damage, increased permeability, plasma penetrate into the alveolar wall of interstitial and alveolar cavity and by direct damage, the release of inflammatory cells, promote the fibrotic cytokine secretion and endothelial cell surface regeneration process, eventually leading to interstitial lung disease characterized fibroblast proliferation and excessive collagen precipitation occurs. As the symptoms characteristic of these diseases is not so obvious, up to more than 200 species associated with this disease diagnosis, such as gas inhalation History, dust, radiology injury history, and taking medications history. Therefore, the diagnosis of the disease is particularly important.

Patients with diffuse pulmonary parenchymal disease mainly dry cough, dyspnea, pulmonary dysfunction and abnormal chest X-ray [3]. Progressive dyspnea is usually the most common symptoms, but sometimes cough, such as lesions involving the small airways or bronchial center distribution, the patient's cough will become more apparent. In the signs, the signs of diffuse pulmonary parenchymal disease most characteristic manifestations of the lungs at the end The Velero sound could be heard and the the small density high-profile rales, also known as end-inspiratory [4]. The incidence of this group of patients Velero rales up to 49.7% of diffuse pulmonary parenchymal disease most characteristic rales. Clubbing is a common manifestation of pulmonary fibrosis patients, especially prevalent in this group of patients with idiopathic or familial pulmonary fibrosis clubbing the incidence rate of 21.4%. The great significance of pulmonary function tests for diagnosis and therapeutic evaluation of diffuse pulmonary parenchymal disease patients in this group of patients pulmonary diffusion mild disorders in 12 patients (6.9%), pulmonary diffusion moderately impaired in 23 cases (13.3 %), pulmonary diffusion severe disorder in 24 patients (13.9%), the pulmonary diffusion very severe obstacles in 2 cases (1.2%). Studies have shown that early lesions in lung function can be normal, but along with the progression of the disease, pulmonary function, there may be more typical restrictive ventilatory function and diffuse dysfunction [5]. Check the means of imaging studies on the diagnosis and treatment of lung injury assessment has great significance, ILD due to the diversification of the different causes, imaging findings, can be expressed as interlobular septal thickening, honeycombing, consolidation win, nodules grinding stripping opacities, and imaging findings in patients with different pathological classification is not the same, with the typical clinical manifestations of patients in clinical practice only a few [6]. Therefore, for most patients, imaging studies is an important adjunct to, observed in this study, 173 patients underwent various laboratory tests. Leukocyte changes in 54 patients (31.3%), infection factors to consider patients with glucocorticoid treatment.

C-reactive protein (C-reactive protein, CRP) is a non-specific acute phase proteins synthesized by the liver in the body under stress, a variety of tissue damage, a sensitive indicator of early inflammation [7]. Literature that CRP lung infections, tuberculosis, lung cancer, chronic obstructive pulmonary disease, Suspension of obstructive sleep apnea hypopnea syndrome and other various types of lung disease diagnosis, treatment, and efficacy assessment has an important meaning [8], while the the in this group study, on patients CRP check to display, 55 cases of elevated (31.8%), indicating that the elevated CRP the existence of certain correlation with the the the incidence of of the diffuse pulmonary parenchymal disease. However, due to the the present study (s) may only prove that the the parenchymal disease of the diffuse pulmonary there will be in patients with an elevated CRP, while the the the the relevance of of the

change the level of circumstances with CRP in the when the aggravate of the interstitial pneumonia acute did not hate, Therefore simplex elevated CRP the the substance of the on the diffuse pulmonary the value of the clinical diagnosis of the disease is not obvious, elevated CRP may also be inherent infection caused by it whether CRP can be used as a specific marker for diagnosis of ILD, needs further clinical studies.

Glucocorticoids in the treatment of interstitial lung disease in applications more widely, glucocorticoids by reducing the level of inflammatory cells in the lungs, protecting the capillary endothelium, anti-inflammatory, promote the absorption of interstitial fluid in the lungs, the promotion of pulmonary surfactantsecretion and inhibit free radicals play a role. The clinical use of corticosteroids, not only can reduce the exudation of lung damage, but also can prevent or reduce the occurrence of pulmonary fibrosis development [9]. The ulinastatin stability of the lysosomal membrane, inhibition of the release of lysosomal enzymes, myocardial inhibition of cytokine production, clear oxygen free radicals and inhibit the release of inflammatory mediators such as the role of. Haidong et al [12] studies have shown Ming Wu cilastatin lung protective effect, can be used as the lung protective agent used in the treatment of lung injury, experimental studies have shown Ulinastatin has the same effect as very glucocorticoid effect [10]. The study found, the simple conventional hormone therapy group effective rate was 87.9%, the impact of hormone treatment group was 87.7%, the impact of hormone the United Ulinastatin his small group was 81.0%, three groups of patients treatment efficiency comparison difference was not statistically significance ($P < 0.05$). Show that the three treatment programs have a certain effect.

In summary, diffuse pulmonary parenchymal disease insidious onset, complex causes of unknown etiology by clinical more common. Velero rales, clubbing, white blood cell count change, elevated CRP and varying degrees of dysfunction of pulmonary diffusion of interstitial lung disease has a certain value. While the glucocorticoid treatment Ulinastatin has a certain effect.

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5/22/2013