Effects of ulinastatin treatment on serum TLRs, MMPs and lipid peroxidation of acute exacerbated COPD patients

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View from specialist; It is creative, and of certain scientific and educational value.

[ABSTRACT] Objective: To study the effect of ulinastatin treatment on serum TLRs, MMPs and lipid peroxidation of acute exacerbated COPD patients. Methods: A total of 80 cases of acute exacerbated COPD in our hospital from 2013 May to 2014 June were enrolled and divided into two groups. Control group received routine treatment, observation group received routine treatment combined with ulinastatin treatment. Then peripheral blood TLRs mRNA content, serum MMPs and lipid peroxidation index were compared. Results: TLR2 and TLR4 mRNA content, MMP9 content and MMP9/TIMP1 ratio of observation group were lower than those of control group; TIMP1 content was higher than that of control group. MDA content of observation group were lower than those of control group; GSH-Px, Cu-Zn SOD contents of were higher than those of control group. Conclusion: Ulinastatin treatment is helpful to reduce TLRs content and control inflammatory reaction, regulate balance of MMP9/TIMP1, inhibit lipid peroxidation. It’s an ideal auxiliary treatment method in patients with acute exacerbation COPD.

[KEY WORDS] Chronic obstructive pulmonary disease; Ulinastatin; Toll like receptor; Matrix metalloproteinases; Peroxidation