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 $\label{eq:objective} \begin{array}{l} \textbf{Objective} \mbox{ Study the function of TNF} \alpha \mbox{ in patients with unstable angina pectoris (UAP) and effect of fasudil on it. \end{array}$

Methods 60 UAP patients were selected in Second Affiliated Hospital of Jilin University from April 2008 to December 2009 including 36 male cases and 24 female cases. UAP patients were divided into subgroups: 20 cases in the group of low risk with 13 male cases and seven female cases, and the age range is between 40 and 61 with average age of (56.72 ± 9.68) ; 20 cases in the group of average risk with 11 male cases and nine female cases, and the age range is between 40 and 61 with average age of (55.18±12.25); 20 cases in the group of high risk with 12 male cases and eight female cases, and the age range is between 40 and 65 with average age of (56.23 ± 12.65) . Divide UAP patients into matches: 30 cases in conventional treatment group, and the age range is between 41 and 63 with average age of (55.61±11.62); 30 cases in fasudil treatment group, and the age range is between 42 and 65 with average age of (56.85±10.27). 20 cases in normal group, and the age range is between 42 and 60 with average age of (55.64 ± 10.41) . Patients in UAP group had conventional treatment of dilatation of coronary artery, anticoagulation, lipid regulation and others. Two ml of Fasudil injection combined with 50 ml of normal saline was injected into patients in Fasudil treatment group by intravenous drop infusion, two times/day and course of the treatment is 14 days. All cases before selection and UAP patients after treatment, had blood samples centrifuged at the speed of 3000 r/min for 15 min at the normal temperature, followed by separation of blood serum and using ELISA method to measure the level of TNF α .

Results TNF α level in UAP patients' blood serum (3.64±1.87 ng/l) was significantly higher than that of normal group $(1.40\pm0.10 \text{ ng/l})$ (p<0.01). In UAP group, TNF α level of blood serum in patients of high risk group (5.37±0.77 ng/l) was significantly higher than that of average risk group $(3.25\pm0.62 \text{ ng/l})$ and that of low risk group $(2.65\pm0.38 \text{ ng/l})$ (p<0.01). Compared with the low risk group, $TNF\alpha$ level of blood serum in patients of average risk group increased and the difference was significant (p<0.05). TNF α level of blood serum in patients in fasudil treatment group $(2.49 \pm 0.25 \text{ ng/l})$ was significantly lower than that before treatment (4.00 \pm 2.04 ng/l) (p<0.01). TNF α level of blood serum in patients of conventional treatment group after treatment (3.02±0.40 ng/l) was also significantly lower than that before treatment (3.98 \pm 1.74 ng/l) (p<0.05). TNF α level of blood serum in patients of fasudil treatment group after treatment was significantly lower than $TNF\alpha$ level of blood serum in patients of conventional treatment group after treatment (p<0.05).

Conclusion TNF α is involved in the pathological process of UAP and it can be used as an index of judging the severity of UAP. Fasudil can improve the UAP inflammatory reaction, and has a protective action to UAP, which is realised by the suppression of TNF α .