Changes and clinical significance of the IL-13, TNF-α and TGF-β1 in old patients with mycoplasma pneumonia

YAO Li-xia

(Department of Internal Medicine, East Lake Hospital of Wuhan, Hubei Province 430000, China)

[Foundation Project]: The national natural science foundation project funded study (grant No. 51077065).

[Author]: YAO Li-xia (1973-), Female, M. M., Associate chief physician, Tel: 13995585521, E-mail: yaolixialili@126.com.

Received: 2014-10-14 Revised: 2014-10-29 JHMC.2015;21(3):332-334

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

[ABSTRACT] Objective: To investigate the changes and clinical significance of the interleukin 13 (IL-13), tumor necrosis factor alpha (TNF-α) and transforming growth factor beta 1 (TGF-β1) in old patients with mycoplasma pneumonia (MP).

Methods: Serum of 52 elderly patients with MP and 26 healthy controls in our hospital were collected, and level of IL-13, TNF-α and TGF-β1 in all cases were measured and compared by ELISA. Results: During acute phase and recovery phase, the IL-13 level in MP groups were significantly lower than those in the control groups (P<0.05) while TNF-α and TGF-β1 level were significantly higher than that of the control groups (P<0.05). The TNF-α and TGF-β1 level in the severe acute and recovery phase with MP groups were significantly higher than that of in mild groups with MP (P<0.05) while the IL-13 levels were significantly lower than that of in the mild groups with MP (P<0.05). The area of IL-13, TNF-α and TGF-β1 of three cytokines under the ROC curve (AUC) respectively 0.864, 0.793 and 0.775. Conclusions: There were significant differences in the levels of IL-13, TNF-α and TGF-β1 between the MP patients and the healthy controls and could reflect the period of onset and severity of MP. The IL-13, TNF-α and TGF-β1 could be used as the MP auxiliary diagnostic indexes.

[KEY WORDS] Interleukin 13; Tumor necrosis factor alpha; Transforming growth factor beta; Mycoplasma pneumonia