

The Characteristics of High Altitude Pulmonary Edema in Naqu at the Altitude of 4,500 m

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Abstract

Purpose: High altitude pulmonary edema (HAPE) has rapid onset and development, and may be life-threatening if not treated in time. It is important to correctly identify and recognize the characteristics of HAPE and to provide timely treatment. We aimed to summarize the characteristics of patients with HAPE by analyzing their general information, clinical symptoms, examination and laboratory results. **Methods:** 429 HAPE patients were enrolled in our study, and 200 of them were divided into three groups according to the period from their arrival in Naqu to the onset of the disease. We collected and analyzed the demographic information, results of laboratory tests, imaging and electrocardiography of all the participants at admission. The patients' results of laboratory tests and imaging at admission were compared with those at discharge. The results of blood routine were compared among different groups. **Results:** Most of the HAPE patients were male (90.21%). The average white blood cell and neutrophil counts, alanine aminotransferase and aspartate aminotransferase levels, uric acid level, lactic dehydrogenase and creatine kinase levels were increased among HAPE patients at admission. The counts of white blood cell, neutrophil and lymphocyte, and the concentration of hemoglobin in HAPE patients at admission were higher than those at discharge ($p < 0.05$). The counts of white blood cell and neutrophil were higher in the patients who developed the disease within 1 day than in those who developed the disease in more than 7 days ($p < 0.05$). **Conclusion:** The proportion of males in HAPE patients was higher. Hepatocyte and myocardium in HAPE patients were more likely to be damaged. The white blood cell and neutrophil counts were significantly higher than normal range, and their increment was reduced as the incubation period extended.

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