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## Clinical Features of Pneumocystis Carinii Pneumonia in Adult Liver Transplant Recipients

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**Purpose:** Pneumocystis carinii pneumonia (PCP) is an opportunistic infection commonly associated with morbidity and mortality in solid-organ transplant recipients. This study was conducted to assess the characteristics of liver transplant recipient suffering from PCP and their outcomes through comparing with the patients diagnosing severe non-pneumocystis carinii pneumonia who required intensive care with mechanical ventilation.

**Method:** For the 2-year study period between January 2008 and December 2009, there were a total of 52 cases of adult liver transplant recipients showing severe pneumonia who required mechanical ventilatory care. PCP was diagnosed only when the pneumocystitis organism was identified at the broncho-alveolar lavage or induced sputum specimens.

**Result:** In this retrospective series, the incidence of PCP was 8 of 52 (15%), of whom 4 patients died from PCP directly. The median period to development of PCP after liver transplantation was 9.5 months (range, 1~67 months). There are no significant statistical differences in the parameters of age, gender, preoperative MELD score, primary diagnosis and graft types between PCP and non-PCP groups, but PCP group was associated with a higher incidence of precedent anti-rejection treatment.

**Conclusion:** These results implicate that risk of PCP in liver transplant recipients is closely related to precedent strong immunosuppression for acute cellular rejection treatment, suggesting the importance of PCP prophylaxis in such a situation. During the study period, we had performed routine PCP prophylaxis only for the first 6 months after liver transplantation. Considering that a majority of PCP occurred around 1 year, it seems to be reasonable to prolong the period of routine PCP prophylaxis until first 12 month, especially for patients having an episode of anti-rejection treatment.