

中文題目：自發性氣胸及縱膈腔氣腫於接受異體造血幹細胞移植之成人病患
英文題目：Spontaneous Pneumothorax and Pneumomediastinum in Adult Patients Receiving Allogeneic Hematopoietic Stem Cell Transplantation

作者：周以新¹，劉耀中^{2,3}，簡聖軒^{2,3,4,5}，柯博伸^{2,3}，王浩元^{2,3}，范乃文^{3,6}，劉嘉仁^{2,3}，蕭樑材^{2,3}，邱宗傑^{3,7}，劉俊煌^{2,3}，高志平^{2,3}

服務單位：¹台北榮民總醫院內科部，²台北榮民總醫院血液科，³國立陽明大學內科學科，⁴台北榮民總醫院台東分院血液腫瘤科，⁵國立陽明大學臨床醫學研究所，⁶台北榮民總醫院眼科部，⁷台北榮民總醫院輸血醫學科

Background: Post-transplant spontaneous pneumothorax or pneumomediastinum is a rare but potentially life-threatening pulmonary complication in patients receiving allogeneic hematopoietic stem cell transplantation (allo-HSCT). Nevertheless, few studies have discussed this complication in the allo-HSCT community.

Methods: Amount of 423 adult patients undergoing allo-HSCT had been reviewed from 2003 to 2014. Baseline characteristics, events of spontaneous pneumothorax or pneumomediastinum, and survival were collected and under analyses. Multivariate logistic regression models were used to assess the independent risk factors.

Results: Thirteen out of 423 patients (3.07%) developed post-transplant spontaneous pneumothorax or pneumomediastinum. The median age at allo-HSCT was 33 years (interquartile-range: 27-46) among 13 patients with spontaneous pneumothorax or pneumomediastinum. Male patients were predominant (69%). The median onset time was at 253 days (range: 40–2680) after transplant. Multivariate analysis revealed that grade III–IV acute graft-versus-host disease (aGVHD) ($p = 0.017$), extensive chronic GVHD (cGVHD) ($p = 0.019$), and prior history of pulmonary invasive fungal infection ($p = 0.007$) were significant risk factors. Age ≤ 42 years ($p = 0.083$) was insignificant from multivariate analysis, yet had trend of increasing risk. Patients with cGVHD had prominent poor survival (log-rank $p = 0.04$).

Conclusion: Pneumothorax and pneumomediastinum is associated with poor survival in patients receiving allogeneic hematopoietic stem cell transplantation (allo-HSCT). Acute graft-versus-host disease, extensive chronic GVHD and history of pulmonary invasive fungal infection were independent risk factors. Tendency of pneumothorax and pneumomediastinum had been discovered for young age patients.