

우리나라 가정용인공호흡기 사용에 대한 현황분석

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목적: 배경: 비침습적 인공호흡기 사용이 증가되고 삶의 질의 중요성이 강조되면서 가정용인공호흡 사용이 증가하고 있다. 하지만, 서구 선진국과는 달리 우리나라는 아직 가정용인공호흡기 사용에 대한 연구자료가 거의 없는 실정이다. **대상 및 방법:** 방법: 본 연구는 2015년 8월부터 2017년 6월까지 가정용인공호흡기 사용을 위해 의료보험급여를 청구한 환자들을 대상으로 국민건강보험공단 자료를 분석하였다. 19세 이상의 성인환자를 대상으로 하였고, 수면무호흡증 환자는 제외하였다. **결과:** 결과: 2년의 연구 기간 동안 총 4,785 명의 인공호흡기 사용자가 등록되었고, 인구 10만 명당 9.3명의 빈도를 보였다. 나이는 56.0 ± 23.9 세, 여자가 40.1%를 차지하였다. 인공호흡기를 사용하게 된 가장 흔한 원인질환으로는 신경근육계질환(42.0%)과 폐/기도질환(27.7%)이 차지하였고, 고령의 환자일수록 뇌혈관질환과 폐/기도질환의 빈도가 증가하였다($r=0.310$, $P<.001$ and $r=0.156$, $P<.001$, respectively). 전체 환자 중 마스크(non-invasive ventilation)를 이용한 인공호흡기 사용자는 37.2%였고, 신경근육계질환(54.4%)과 흉벽질환(53.4%)에서 가장 흔하였고, 뇌질환을 가진 환자에서 10% 이하로 가장 낮았다. 가정용인공호흡기를 처방한 의료진으로는 내과 의사가 41.3%로 가장 많았고, 재활의학과와 신경과 의사가 두 번째로 흔하게 처방을 하였다. **결론:** 결론: 우리나라 가정용인공호흡기 사용의 빈도는 10만 명당 9.3명이었다. 본 자료는 앞으로 우리나라 실정에 맞는 보건의료 계획을 세우는데 큰 도움을 줄 것으로 사료된다.

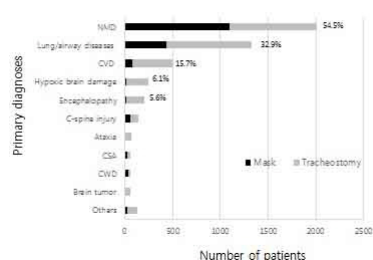
Table 1. Primary diagnoses for HMV use

Diseases	Number (%)
Neuromuscular diseases	2008 (42.0)
Lung and airway diseases	1327 (27.7)
Cerebrovascular disease	492 (10.3)
Hypoxic brain damage	246 (5.1)
Encephalopathy	198 (4.1)
C-spine injury	145 (3.0)
Ataxia	67 (1.4)
Central sleep apnea	60 (1.3)
Chest wall disease	58 (1.2)
Brain tumor	51 (1.1)
Congenital anomaly	38 (0.8)
Others*	104 (2.2)

HMV = home mechanical ventilation

*Neonatal respiratory failure (n = 38), multiple systemic atrophy (n = 26), metabolic disease (n = 24), multiple sclerosis (n = 12), and prion disease (n = 4)

Mask ventilation according to primary diagnoses.



A rare case of pulmonary cryptococcosis in lung cancer patients

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Pulmonary cryptococcosis is usually occurred in immunocompromised patients (e.g. HIV infected patients). We founded a rare case of pulmonary cryptococcosis in lung cancer patients taking epidermal growth factor receptor tyrosine kinase inhibitor (EGFR-TKI) without underlying diseases. A 57 year-old female, she was initially admitted to our department with diagnosis of non-small cell lung cancer (NSCLC). Patient's pathologic type of NSCLC was adenocarcinoma. She had undergone video-assisted thoracoscopic surgery (VATS) lobectomy with regional lymph node dissection for curative treatment. She was treated adjuvant chemotherapy for 3 cycles. In response evaluation, multiple small pulmonary nodules were founded on both lung. Pulmonary nodules showed multiple irregular shaped nodules in both lungs. Percutaneous needle biopsy (PCNB) was done at above lesion. Chronic granulomatous inflammation was founded on histopathology. There was no suitable lesion of re-biopsy. Even if there was lack of pathologic evidence, nodule was considered as cancer progression because it was highly suspected in radiologic findings and nuclear imagings. She was taken EGFR-TKI, gefitinib, for the metastatic lesion. after 8 months of medication, pulmonary nodules were showed mixed response to gefitinib in response evaluation. PCNB was performed on right lower lung nodule to evaluate acquired resistancy and mutation study. In histopathologic review, there was chronic granulomatous inflammation and cancer cell was not founded. VATS wedge resection was performed for accurate diagnosis. Thereafter, round fungal spores were observed in the PAS stain. Most diagnosis was cryptococcal infection which was highly suspected in the histopathologic findings. Adenocarcinoma was not found in the biopsy sample. Pulmonary cryptococcosis was treated with amphotericin for 2 weeks and fluconazole as for 6 months plan. This is the first case of pulmonary cryptococcosis during EGFR-TKI treatment in Korea. She was taking EGFR-TKI when pulmonary cryptococcosis was founded and it was few months later after adjuvant chemotherapy. Similar case was reported in Japan.

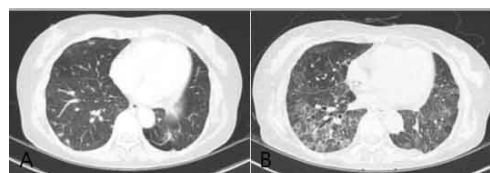


Figure1. A. Initial Chest CT. R/O progression of metastatic nodules. B. CT after taking fluconazole: Decreased in numbers and size of multiple irregular shaped nodules in B lungs but poor visualization of most of the nodules d/t thick section.

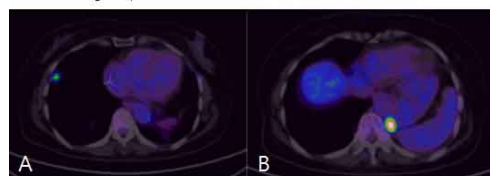


Figure2. A. Malignant pulmonary nodule at the right middle lobe. B. Metastatic or Reactive lymphadenopathy of the left lower mediastinal para-aortic nodes.

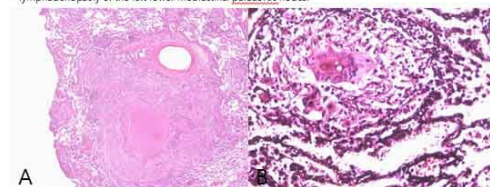


Figure 3. Lung biopsy A. X40(H&E) Chronic granulomatous inflammation with multinucleated giant cells. B. X400(silver) Fungal spores are observed and morphologically most likely to have a cryptococcal infection.