**Supplementary data**

**Table S1: Other concomitant therapies**

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| **Case** | **Treatment\*** | **Type of drug induced respiratory disease reported in Pneumotox®** (www.pneumotox.com) |
| Case 1 | OmeprazoleDomperidone | Angioedema and urticaria, cough |
| Case 2 | OndansetronTramadolFondaparinux | Hypoventilation, respiratory acidosis, multiple organ dysfunction |
| Case 3 | LoperamideTinzaparineMetoclopramine |  |
| Case 4 | IrbesartanFurosemideAtenololNadroparine calciqueDomperidoneTramadol-Paracetamol | Hypoventilation, respiratory acidosis, multiple organ dysfunction |
| Case 5 | PrednisoneVenlafaxineDivalproate de sodiumAlprazolamZolpidem | Subacute pneumonitis/ILD, eosinophilic pneumonia, bronchospasmPulmonary edema |
| Case 6 | PrednisoneSulfate de morphineRabeprazoleFurosemideTinzaparine[Amitriptyline chlorhydrate](http://www.vidal.fr/substances/6678/amitriptyline/) | Diffuse alveolar damage, pulmonary edema, ARDS, diffuse alveolar hemorrhage, bronchospasmEosinophilic pneumonia, ARDS, hypoventilation |

\*We could not exclude an interaction between drugs; however none of these treatments was stopped, except crizotinib

**Table S2: Criteria for assessing crizotinib associated ILD**

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| **Intrinsic criteria from the clinical analysis** |
| Exposition to Crizotinib | All cases |
| Beginning of symptoms after crizotinib instauration  | All cases |
| No ILD before Crizotinib  | Except for Case #6 who developed ILD after erlotinib expositionNo thoracic radiotherapy  |
| Compatible presentation | Case #6: ARDSIndex Case and Cases 2 to 5 *• Clinical:* few symptoms, cough, dyspnea *• Radiologic:* GGO lesions far from tumoral lesions, in normal lung, and tended to migrate over time. These lesions were not extensive or diffuse, but rather localized *• BAL:* T-lymphocytic alveolitis with a predominant CD4 cell subset.  *• Histology:* no specific lesion, no tumor cell |
| Exclusion of others etiologies | Medications | See Table IV  |
| Environmental exposure | No changes in environmental exposure or lifestyle reported by cases at this time in comparison to usualNegative results for serologies for domestic exposure hypersensitivity pneumonitis |
| Auto-immunity | Negative results of : antinuclear antibody, anti-DNA antibody, antineutrophil cytoplasmic antibody, C3 and C4 complement components, rheumatoid factor, anti-cyclic citrullinated peptide antibody, anti-aminoacyl-tRNA-synthetase antibody including PL1, 7, and 12: negative (except Case #2) |
| Infection | Extensive microbiologic evaluations (sputum, blood cultures, bronchial aspiration, BAL) proved negative for virus, bacteria, acid-fast bacilli, fungi, and parasites Negative serology test results for atypical pathogens  |
| Cardiovascular disease | Echocardiography: normal systolic function. Normal brain natriuretic peptide dosageNo intra-alveolar haemorrhage in BAL |
| Lung cancer progression | Absence of tumor cells in BAL nor adenocarcinoma in bronchial and tranbronchial biopsies FDG-PET: partial tumour response |
| Improvement by stopping crizotinib | Regression of ILD for all cases except Case #6 |
| Relapse with reintroduction of crizotinib | Three cases with recurrence |
| **Extrinsic criteria from the literature** |
| Other cases in systematic review of the literature | 9 cases described, 4 conducted to death, 4 with reintroduction of crizotinib, 1 relapse |