**Emphysema association in a prospective series with patients suffering from Idiopathic Pulmonary Fibrosis.**

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**OBJECTIVE:**
We aim to identify patients suffering from Idiopathic Pulmonary Fibrosis (IPF) and emphysema – within a prospective series of patients diagnosed with IPF – and to analyse their differential and survival characteristics.

**METHOD:**
Longitudinal prospective study which includes patients diagnosed with IPF for the period January 2005 - October 2011. Data collected:
- Demographic characteristics.
- Findings typical of emphysema in HRCT.
- Respiratory functional explorations during the moment of the diagnosis
- Deaths during the follow-up.

They were divided into two groups according to the presence or the absence of associated emphysema in the IPF patient.

Statistical analysis: Chi square test, Mann-Whitney U test and Kaplan-Meier survival probability curve.
Figures 1. (a,b,c). Involvement of both lower lobes consisting cystic, some larger than 3 cm, that shaped and arranged in zones subpleural honeycombing regarding fibrosis. Presence of bullae by subpleural emphysema. Also appreciate bronchial dilation in both lower lobes. **CONCLUSION:** fibrosis with associated emphysema and bronchiectasis.
Figure 2: NIU changes were seen with thickened septa and abundant subpleural honeycombing and subcisural. It is also noteworthy the presence of some areas of high ground-glass density that could indicate inflammatory activity at this time. Subpleural air cysts LLSS paraseptal representing emphysema.

RESULTS:
73 patients with IPF were included. 13 of them (18.1%) underwent a surgical biopsy in order to obtain diagnostic confirmation. The average age was 73±9 years, 61.6% were men. 9 patients (12.3%) presented IPF-emphysema, all with a smoking history (p=0.002). No significant differences were found while performing pulmonary function tests, except for DLCO% (IPF:54±15 vs. IPF:39.7±13, p=0.035) and DLCO%/VA (IPF:89±22.5 vs. IPF-Enph.:64±15.6, p=0.005)
At the end of the follow-up, 34 patients had died (46.6%), 66.7% of them of IPF-Emph, contrasting with 33.3% who died of IPF, without significant differences (p=0.2).
The average survival of the group was 41.9±17.8 months: 46.3±15.3 months (16.3-76.4 95% CI) for IPF-Emphysema and 59.4±5.2 (49.2-69.7 95% CI) for FPI (p=0.22).
<table>
<thead>
<tr>
<th>Medias</th>
<th>FEV1 (%)</th>
<th>FVC (%)</th>
<th>Tiffenuau (%)</th>
<th>DLC (%)</th>
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<th>CPI</th>
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<tbody>
<tr>
<td>FPI</td>
<td>88.53</td>
<td>84.61</td>
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<td>86.63</td>
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<td>0.740</td>
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<td>0.153</td>
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![Pie chart showing percentage of Biopsia and No Biopsia](chart.png)
CONCLUSIONS:

We detected in our group a small percentage of IPF-Emphysema, all of them with a tobacco habit. The only difference in the moment of the diagnosis was that DLCO% and DLCO/VA% were more affected in IPF-Emphysema patients, but so far we have not detected a minor survival of these patients.
REFERENCES:


