ERS - A randomized placebo and active controlled trial of AZD8871 a novel dual acting bronchodilator in COPD patients

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Dicho de una cosa: que va acompañada de otra semejante y que juntas sirven para el mismo fin

Que reúne dos caracteres o fenómenos distintos

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**LABA**
Long-acting $\beta_2$ Agonist

**LAMA**
Long-acting muscarinic antagonist

**MABA**
Muscarinic Antagonist and $\beta_2$ Agonist
Background

AZD8871 is an inhaled long acting dual muscarinic antagonist/β2 adrenoceptor agonist (MABA) under development for treatment of COPD and asthma.

This 5-way complete crossover trial was designed to test efficacy, pharmacokinetics, safety and tolerability of AZD8871 in patients with COPD.
Methods

Moderate to severe COPD patients ≥40 years of age (females of non-childbearing potential and males) were randomized.

Patients received single doses of AZD8871 400 or 1800 µg, or placebo in a double blind fashion, or open label indacaterol 150 µg or tiotropium 18 µg, in a randomized order. Each treatment was followed by a wash out period of 7-21 days.

38 patients were randomized and 28 patients completed all treatments. Mean (SD) %predicted FEV1 at baseline was 52(12.5)% and 20(13.7)% patients were reversible.

AZD8871 pharmacokinetics were assessed in subset of 18 patients.
Results

AZD8871 demonstrated very quick onset of action, within 5 min of dosing, at both doses.

A sustained bronchodilation over 36 hours was observed with both doses of AZD8871. LS mean (SEM) differences in trough FEV1 versus placebo for:

- AZD8871 400 µg: 107 (24) mL
- AZD8871 1800 µg: 210 (24) mL
- Indacaterol: 153 (24) mL
- Tiotropium: 138 (24) mL

AZD8871 1800 µg showed greater bronchodilation than both indacaterol and tiotropium for both peak and trough FEV1.

Few adverse events were observed: headache (31.6%) and nasopharyngitis (13.2%) were the most common and there was no dose response observed with any adverse event.
Conclusions

Overall, both dose levels of AZD8871 delivered significant and sustained bronchodilation, superior to placebo and at the highest dose superior to both reference agents, with no emerging safety concerns.