Introduction and rationale

- Pulmonary manifestations of systemic sclerosis (SSc) are a leading cause of mortality and late stage disease morbidity. 18-20% of SSc patients develop pulmonary arterial hypertension (PAH). 1
- Median survival of SSc patients without PAH is particularly poor with an estimated 10-12 years following diagnosis. 2
- PAH associated with SSc is typically diagnosed late, when other SSc symptoms are well-established. 3
- Early detection of PAH associated with SSc is considered essential to allow for optimal patient management. 4
- The DETECT study, which started in 2008, is a prospective, observational cohort in two stages: – Cross-sectional stage (results expected in 2010)
- – Early detection of PAH associated with SSc is considered essential to allow for optimal patient management. 4
- – The DETECT study is designed to identify single or multiple screening tests for early PAH detection in SSc patients. 5
- – The results of the DETECT study are expected to influence future PAH/PH screening guidelines and management of SSc patients. 6

Objectives

Primary objectives

- To determine the discriminatory and predictive ability of single or multiple screening tests for PAH in SSc patients.

Secondary objectives

- To determine the discriminatory and predictive ability of single or multiple tests for screening of PAH in SSc patients.

Explanatory objectives

- To assess the correlation between changes in screening test results and changes in measures of clinical status during the follow-up period.
- To investigate the association between potential prognostic factors and PAH during the follow-up period.

Methods

- Study design and timelines
  - The DETECT study, which started in 2008, is a prospective, observational cohort in two stages: – Cross-sectional stage (results expected in 2010)
  - – Study population: all SSc patients with no prior evidence of PAH/PH
  - – Inclusion criteria: age ≥ 18 years, diagnosis with SSc
  - – Exclusion criteria: patients unlikely to be available for annual follow up over an estimated 1.5–2.0 years following diagnosis.
  - – Pregnancy
  - – Previous evidence or diagnosis of clinically relevant left heart disease and other relevant cardiac conditions
  - – Use of endothelin receptor antagonists, phosphodiesterase type 5 inhibitors, prostacyclins, and other PAH therapies
  - – RHC within the 12 months before enrollment
  - – Diffusing capacity of the lung for carbon monoxide <60% of predicted
  - – Patients unlikely to be available for annual follow up over an estimated 1.5–2.0 years following diagnosis
  - – Pregnancy

- Participating countries (number of sites) in the DETECT study
  - USA (24), Canada (10), Austria (2), Czech Republic (1), Germany (11), Hungary (2), Netherlands (1), Poland (1), Slovakia (1), Romania (1), Russia (1), Bulgaria (1), Switzerland (3), UK (1), Turkey (1), Estonia, Zarbaj, 21(3 Suppl 29)

- Study assessments and visits
  - Visit 1: Screening (inclusion criteria)
  - Visit 2: Baseline (exclusion criteria, all assessments incl. RHC)
  - Follow-up visits: Year 1, Year 2, Year 3

- Non-invasive assessments
  - Six minute walk test
  - Borg dyspnea index
  - Right heart catheterization

- Laboratory assessments
  - PFT: DLCO/VA, FVC, FEV1
  - NT-proBNP: N-terminal prohormone B-type natriuretic peptide
  - Medication: concomitant medication

- Analyses of data from the longitudinal follow-up will include:
  - – Estimation of the cumulative proportion of patients with confirmed PAH or PH following 3 years (or earlier in cases of withdrawal) assuming binomial distribution.
  - – Multivariable logistic regression analysis to investigate the association of potential prognostic risk factors and PAH/PH occurrence.

- Visit and assessment schedule
  - Year 1
    - Screening + Baseline + All assessments incl. RHC
  - Year 2
    - Visit
    - Baseline + All assessments incl. RHC
  - Year 3
    - Visit
    - Baseline + All assessments incl. RHC

- Target recruitment ~ 500 patients

- Summary

- Pulmonary manifestations of SSc are a leading cause of mortality and late stage morbidity.
- Early diagnosis and treatment of PAH in SSc patients is fundamental to optimal patient management.
- The DETECT study is designed to identify single or multiple screening tests for early PAH detection in SSc patients.
- The results of the DETECT study are expected to influence future PAH/PH screening guidelines and management of SSc patients.
- A convenient non-invasive testing profile for PAH/PH in SSc patients would be expected to impact standards of care in a variety of clinical settings beyond SSc.

References


Acknowledgement

We gratefully acknowledge all investigators who will be involved in this study, which is supported by a grant from Actelion Pharmaceuticals Ltd. Abstract, Background, Materials and Methods, Conclusions, and Presentation of this poster have been supported by Actelion Pharmaceuticals Ltd.

What is the application process to participate in the clinical trial?

In general, recruitment of study sites has been completed. Sites fulfilling all criteria and having a high patient enrollment potential may still be considered for participation. For more information please contact

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