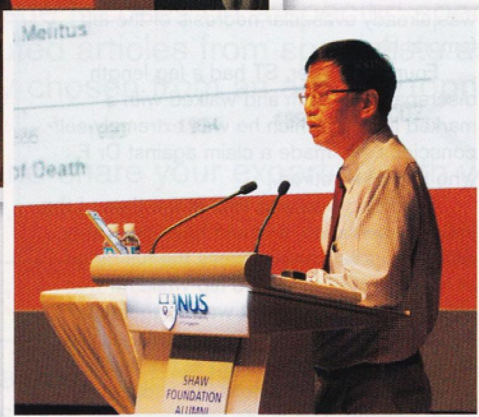


Diagnosing COPD



NUS, Singapore (31 July 2010) --

Prof Philip Eng, Consultant Respiratory & ICU Physician at the Mt Elizabeth Medical Centre, gave a talk on the diagnosis of Chronic Obstructive Pulmonary Disease, commonly referred to as COPD. COPD used to be an orphan disease with serious consequences, with 50% of severe cases dying within 2 years. The medical community has woken up to this fact and one current education program is the Global Initiative for Obstructive Lung Disease, which includes the diagnosis, management and prevention of COPD. This initiative was last updated in 2009. Prof Eng encouraged both physicians and patients to visit www.gold.com for guidelines and updates on the management of this condition.

Risk factors of COPD

Prof Eng also touched on the many significant issues doctors face when trying to help smokers quit. Issues such as "I do not inhale", as well as "I don't smoke a lot" are often heard from patients, although the meaning can vary a lot.

The prevalence of COPD around the world has been growing, with the Asia Pacific region having a prevalence of 6.3%.¹ COPD is a condition that appears in both lists of top 10 causes for mortality and hospitalization in Singapore.²⁻⁸ The biggest single risk factor for COPD is smoking, followed by age, especially amongst those over the age of 60 years.

Diagnosis of COPD

The diagnosis of COPD involves recognizing the symptoms, i.e., shortness of breath, chronic cough or sputum and the presence of a risk factor for COPD. Diagnosis needs to be confirmed with spirometry. Although there are many different types of spirometers, they are usually simple to use even at the primary care level. He went on to provide a detailed explanation on how a primary care practitioner could go about interpreting the results from a spirogram.

Therapies for treatment

Prof Eng then went on to discuss the therapies available for use at each stage of COPD. Active reduction of risk factors includes smoking cessation, annual influenza vaccination and one-time pneumonia vaccination. Short acting bronchodilators can be used in the mild stage when needed. As COPD becomes moderate, long acting bronchodilators as well as rehabilitation should be introduced. This would be followed by inhaled glucocorticosteroids if there are repeated exacerbations. Addition of long term oxygen is useful later when chronic hypoxemic respiratory failure sets in.

In recent years, there have been two landmark studies carried out in COPD management. The TORCH study (Towards a Revolution in COPD Health), suggested that using seretide may improve survival in COPD patients, but stopped short of being statically significant. The UPLIFT Trial (Understanding Potential Long-Term Improvements in Function with Tiotropium), which came 2 years later in 2009, explored an understanding of the potential beneficial effects on lung function with Tiotropium. UPLIFT clearly demonstrated reduction in mortality in COPD patients on Tiotropium. The study also showed sustained improvement in Quality of Life, reduced exacerbations and COPD related hospitalizations with Tiotropium treatment.¹⁰ As a result of this landmark study, oxygen and tiotropium are now probably the only 2 therapies that have significantly demonstrated reduction of mortality in COPD. **MG**

References:

- 1 Murray et al. Science 1996.
- 2 European White Lung Book, 2003.
- 3 American Lung Association Report, 2005.
- 4 U.S Census Bureau. www.census.gov (accessed February 2006).
- 5 Hallal et al. Poster presented at ATS 2005.
- 6 Chan-Yeung et al. Int J Tuberc Lung Dis 2004.
- 7 Lacasse et al. CHEST 1999.
- 8 Australian Institute of Health and Welfare. Australia's Health 2006.
- 9 Calverley et al. TORCH, NEJM Feb 2007
- 10 Celli, Bartolome et al. Mortality in the 4-Year Trial of Tiotropium (UPLIFT) in Patients with Chronic Obstructive Pulmonary Disease, Am J of Resp & CCM 2009; 180: 948-55

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Clinical Paper Highlights:

Mortality in UPLIFT Patients with COPD

- A total of 5993 patients were randomised to receive tiotropium (2987 patients) or placebo (3006 patients) for four years (UPLIFT trial)
- Treatment with tiotropium over 4 years was associated with decreased mortality (hazard ratio, 0.84; 95% CI, 0.73-0.97) at end of the protocol-defined treatment period
- Adjustment by GOLD stage, sex, age, baseline smoking behaviour, and baseline respiratory medications subgroups did not alter the results of the analysis
- The most common causes of death were: lower respiratory, cancer, general disorders and cardiac disorders

Celli B, et al. Mortality in the 4-Year Trial of Tiotropium (UPLIFT) in Patients with Chronic Obstructive Pulmonary Disease, Am J Respir Crit Care Med 2009; 180:948-955.