Beyond the lungs—a new view of COPD

Despite being the fifth leading cause of death in high-income countries, and the sixth in low-income and middle-income nations, chronic obstructive pulmonary disease (COPD) has not received the attention it deserves. It is underdiagnosed, undertreated, and underfunded and neglected by the public, pharmaceutical industry, and physicians alike when compared with other major killers, such as cardiovascular disease and stroke. This neglect is sadly due in part to the perception that COPD is a self-inflicted smokers’ disease that affects only elderly people and has no effective treatment. Thankfully, these misconceptions about COPD are rapidly being challenged. As this week’s issue of The Lancet—which focuses on the condition to coincide with this year’s European Respiratory Society meeting in Stockholm, Sweden (Sept 15–19)—shows, COPD can affect never-smokers, be caused by factors other than cigarette smoke, and susceptibility to the disease could be established in utero.

Over 15% of COPD occurs in people who have never smoked. Although smoking is the most important risk factor for COPD in high-income and middle-income countries, in low-income nations exposure to indoor air pollution, such as the fumes from biomass fuels for cooking and heating, causes most COPD cases. The BOLD study in this week’s issue, which estimates the worldwide prevalence of COPD, illustrates the importance of risk factors other than smoking. The investigators found that the prevalence of COPD among individuals aged 40 years and older who had never smoked was similar to that for those who had ever smoked and had 0–10 pack-years of cigarette smoking exposure. Several study sites had exposure to potential risk factors for COPD other than smoking, including occupational hazards—irritants, fumes, and vapours—and tuberculosis.

Second-hand smoke is another risk for people who have never smoked. As Peng Yin and colleagues show, passive smoking in workplaces and homes could be responsible for 1.9 million (95% CI 0.9–2.8 million) excess deaths from COPD among never-smokers in China. The results from Yin and colleagues’ study should urgently inform tobacco-control policy in China, where, according to this week’s World Report, economic arguments about the country’s billion-dollar tobacco industry are currently triumphing over health concerns. However, the human and economic ramifications of smoking and passive smoking in terms of health-care costs, lost years of work and productivity, and premature deaths should be the Chinese Government’s greater concern.

COPD is not just a “smokers’ disease”. Nor is it solely an affliction in old age, since 5–10% of non-smoking young adults show signs of COPD. Future preventive interventions might be applicable in pregnancy or infancy. As Debra Stern and colleagues show, poor airway function shortly after birth is a risk factor for airway obstruction in early adult life—a strong predictor of COPD.

What of the view that little can be done for patients? Currently, the condition cannot be reversed by the mainstay therapies—bronchodilators and anti-inflammatories—but medications can provide patients with symptomatic relief and improve quality of life. One of the problems in the search for new drugs for COPD has been that large clinical trials have excluded patients who have comorbidities commonly associated with the condition, such as ischaemic heart disease and diabetes. Such exclusion means that the results from large trials have little relevance to real-life patients.

This lack of attention to COPD comorbidities makes the suggestion put forward by the authors of this week’s Viewpoint all the more compelling. Leonardo Fabbri and Klaus Rabe argue that COPD and all its comorbidities should come under a new umbrella term—chronic systemic inflammatory syndrome—because the systemic effects of smoking contribute to several other conditions, including cardiovascular disease, some cancers, and increased blood pressure.

We support this call for a new view of the disease. The non-pulmonary conditions associated with COPD need to be recognised as part of the diagnosis rather than as separate medical conditions, especially since patients are more likely to die from these conditions than COPD. Such a shift in thinking could bring us closer to the goal that has so far been elusive—treatments that can reduce mortality associated with COPD. That this year’s European Respiratory Society meeting has a session devoted to COPD comorbidities is a promising start. Only with a view of COPD that goes beyond the lungs can the research community deliver what many clinicians want and patients need—a holistic approach to the management of this disabling condition. ■ The Lancet