Comments: Prevalence of obstructive airway diseases by spirometric indices in non-smoker subjects with IHD and HTN

Sir,

I read the article ‘Prevalence of obstructive airway diseases by spirometric indices in non-smoker subjects with ischemic heart disease (IHD) and hypertension (HTN)’[1] with keen interest. The most likely link between chronic obstructive pulmonary disease (COPD) and extra pulmonary effects is that inflammation in the lung periphery “spills over” into the systemic circulation and effects on other organs that may also be affected by the systemic effects of cigarette smoking.

There are multiple sources of evidence demonstrating a high prevalence of IHD in COPD patients. In the Evaluation of COPD Longitudinally to Identify Predictive Surrogate Endpoints (ECLIPSE) study, IHD was reported in 26% of 2164 COPD patients compared with 11% of 337 smoking controls ($P < 0.001$).[2]

The authors have mentioned various studies which were having similar results as the current study. But the difference in the current study was that both control and the study group consisted of non smokers hence, ruling out smoking as a confounding factor. This further emphasizes on the fact that COPD is linked with its co morbidities by systemic inflammation and its mediators playing an important role in the pathogenesis. The co morbidities have a significant impact on morbidity and mortality in COPD.[3]
What was left out was the effect of medication that the patient may already be taking. Though Beta blockers are safe in COPD, their effect on Asthma is well known and some of these patients could be having Positive Bronchodilator Test, which could be a confounding factor. As a cautionary note, in a recent study of patients with severe COPD and IHD, bisoprolol, a cardio selective β-blocker, was shown to have a deleterious effect on the FEV₁, but one may argue that the magnitude of the changes was small, thereby limiting the clinical relevance of the finding.

Finally, it is important that we come up with guidelines for the management of Cardiac and Obstructive airway disease co existing and develop sharp sense of doubting one condition even when the patient presents to the physician for the other as both IHD and HTN can affect the treatment and prognosis of Obstructive airway disease and vice versa. Ironically, National Institutes of Health funding of research in COPD is currently the lowest among all major causes of mortality in North America.

Tazeen Oquaish, Mohd Arif
Sufia Memorial Hospital, Bijnor, Uttar Pradesh, India,
1Department of Child Health, Institute of Medicine, T.U.T.H, Kathmandu, Nepal
E-mail: tazeen.aashi@gmail.com

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