The effects of obesity on pulmonary function in adults with asthma

Sir,

I read with interest the distinguished study by Özbey et al.[1] published in September-October 2019 issue of the Lung India. The authors studied the effects of nutritional habits and obesity on pulmonary functions and control of asthma in a cohort of Turkish patients with asthma who aged between 20 and 65 years. On employing spirometery to assess pulmonary function tests (PFTs), they found that the obese respondents had a lower mean forced vital capacity (FVC), forced expiratory volume in 1 s (FEV₁), midexpiratory flow (MEF) between 25% and 75% of the maximal expiration (MEF $_{25-75}$), MEF $_{75}$, MEF $_{50}$, MEF $_{25}$, and FEV $_{\rm J}/{\rm FVC}$ values when compared to the respondents with normal weight (P < 0.05).^[1] Apart from few study limitations mentioned by the authors, I presume that the following methodological limitation is additionally relevant. It is worthy to mention that interpreting PFT in a given population needs prediction equations for spirometery based on certain determinants such as age, gender, and height for that population.[2] Indeed, many adult populations-specific references equations for spirometric indices have been formulated to be employed in the researches and clinical fields. [3,4] In the methodology, the authors did not mention which spirometric reference intervals were used to interpret PFT in the studied cohort. To my knowledge, spirometric standards for adult Turkish population have been already evaluated.^[5] I presume that employing these national standards in the study

methodology could provide more accurate idea on the influence of obesity on pulmonary functions and asthma control. Despite study limitations, the study results urge the need for weight reduction in asthmatic patients to preserve lung function and improve the quality of life.

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Conflicts of interest

There are no conflicts of interest.

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REFERENCES

- Özbey Ü, Ucar U, Calis AG. The effects of obesity on pulmonary function in adults with asthma. Lung India 2019;36:404-10.
- Rivero-Yeverino D. Spirometry: Basic concepts. Rev Alerg Mex 2019;66:76-84.
- Zhang J, Hu X, Shan G. Spirometry reference values for population aged 7-80 years in china. Respirology 2017;22:1630-6.

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- Fawibe AE, Odeigah LO, Saka MJ. Reference equations for spirometric indices from a sample of the general adult population in Nigeria. BMC Pulm Med 2017;17:48.
- Ulubay G, Dilektaşlı AG, Börekçi Ş, Yıldız Ö, Kıyan E, Gemicioğlu B, et al. Turkish Thoracic Society Consensus report: Interpretation of spirometry. Turk Thorac J 2019;20:69-89.

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