

6. Martínez-García MA, Campos-Rodríguez F, Durán-Cantolla J, de la Peña M, Masdeu MJ, González M, *et al.*; Spanish Sleep Network. Obstructive sleep apnea is associated with cancer mortality in younger patients. *Sleep Med* 2014;15: 742–748.
7. Campos-Rodríguez F, Martínez-García MA, Martínez M, Durán-Cantolla J, Peña MdeL, Masdeu MJ, *et al.*; Spanish Sleep Network. Association between obstructive sleep apnea and cancer incidence in a large multicenter Spanish cohort. *Am J Respir Crit Care Med* 2013;187: 99–105.
8. Campillo N, Torres M, Vilaseca A, Nonaka PN, Gozal D, Roca-Ferrer J, *et al.* Role of cyclooxygenase-2 on intermittent hypoxia-induced lung tumor malignancy in a mouse model of sleep apnea. *Sci Rep* 2017;7:44693.
9. Li L, Ren F, Qi C, Xu L, Fang Y, Liang M, *et al.* Intermittent hypoxia promotes melanoma lung metastasis via oxidative stress and inflammation responses in a mouse model of obstructive sleep apnea. *Respir Res* 2018;19:28.
10. Dalmases M, Torres M, Márquez-Kisinousky L, Almendros I, Planas AM, Embid C, *et al.* Brain tissue hypoxia and oxidative stress induced by obstructive apneas is different in young and aged rats. *Sleep (Basel)* 2014;37:1249–1256.

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The Bronchial Epithelial Secretory IgA System in Asthma

To the Editor:

I read the article by Ladjemi and colleagues with great interest (1). The authors examined components of the secretory IgA system in bronchial biopsies (1), reporting less intense immunostaining for pIgR (polymeric immunoglobulin receptor) in samples from people with asthma, relative to control subjects. Reduced pIgR immunostaining in asthma appeared to be independent of global asthma severity and atopic status. In contrast, pIgR gene expression was similar in control subjects and those with asthma (1), although the authors do not comment on the inconsistency between the immunostaining and gene expression data.

To better understand the significance of these observations, readers of the *Journal* need to know if the data might be confounded by corticosteroid treatment, especially as a large proportion of the asthmatic participants were using inhaled and oral steroids. Knowing if there is a relationship between inhaled steroid dose and the secretory IgA system is of great interest, given the links between high-dose inhaled steroids and the risk of pneumonia (2, 3). The article lacks important clinical information: the basis for the assessment of asthma severity is not stated, and it is not clear how asthma control was assessed, and whether this was based on a validated questionnaire.

The authors claim in the INTRODUCTION that a prior study showed decreased IgA content in BAL fluid from patients with severe asthma (4). However, Balzar and colleagues showed that BAL fluid secretory IgA concentrations were similar in severe

asthma and mild asthma, and in normal subjects (4), although serum IgA was low in severe asthma (4). Finally, Reference 12 in their article is completely unrelated to the article's subject matter and appears to have been included by mistake. I would value comments from the authors on the issues raised herein. ■

Author disclosures are available with the text of this letter at www.atsjournals.org.

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References

1. Ladjemi MZ, Gras D, Dupasquier S, Detry B, Lecocq M, Garulli C, *et al.* Bronchial epithelial IgA secretion is impaired in asthma: role of IL-4/IL-13. *Am J Respir Crit Care Med* 2018;197:1396–1409.
2. Ernst P, Gonzalez AV, Brassard P, Suissa S. Inhaled corticosteroid use in chronic obstructive pulmonary disease and the risk of hospitalization for pneumonia. *Am J Respir Crit Care Med* 2007;176: 162–166.
3. Suissa S, Patenaude V, Lapi F, Ernst P. Inhaled corticosteroids in COPD and the risk of serious pneumonia. *Thorax* 2013;68: 1029–1036.
4. Balzar S, Strand M, Nakano T, Wenzel SE. Subtle immunodeficiency in severe asthma: IgA and IgG2 correlate with lung function and symptoms. *Int Arch Allergy Immunol* 2006;140:96–102.

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Reply to Upham

From the Authors:

We thank Dr. Upham for his interest and comments on our article about pIgR/SC (polymeric immunoglobulin receptor/secretory component) in asthma (1). First, although our data indeed show that bronchoepithelial pIgR immunostaining is reduced in asthma, irrespective of severity or its allergic phenotype, gene expression (pIgR mRNA levels) was not significantly affected. This apparent discrepancy was also observed in chronic obstructive pulmonary disease (COPD) (2), where pIgR immunostaining was reduced in COPD and correlated with disease severity, but pIgR mRNA was upregulated in mild COPD, probably in relation to a “direct” effect of smoking (independently of COPD). An imbalance between synthesis and post-transcriptional regulation, including proteolytic cleavage (3), could explain these observations and should be investigated. Second, the potential effect of corticosteroid treatment on bronchial pIgR expression remains unknown, as already pointed

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