*a priori*, a low probability of the diagnosis. Therefore, in the same session, EUS-B-FNA was performed. By means of this technique, lung lesions were identified at 24 and 21 cm, respectively, from the dental arch. The results of the transesophageal needle biopsy revealed epidermoid carcinoma in the first case (Fig. 1) and adenocarcinoma in the second.

EUS-B-FNA has a diagnostic performance similar to digestive endoscopic ultrasound in staging the mediastinum<sup>1,2</sup> while reducing the initial investment, costs of the procedure and technique time.<sup>4</sup> However, current endobronchial ultrasound is not able to access extrathoracic locations and has less ultrasound resolution and penetration than digestive endoscopic ultrasound, whose scan range is much wider.<sup>1</sup> Therefore, it has been proposed to develop a specific hybrid endobronchial ultrasound that is somewhat longer and incorporates some minor design changes, such as the variable adjustment of the needle.<sup>2</sup>

In addition to the benefits from a logistic standpoint, another advantage of the esophageal use of the endobronchial ultrasound is its being better tolerated than the tracheal approach in patients with severe cough despite adequate sedation and in individuals with compromised lung function,<sup>4</sup> as in the case number 1 that we have provided. Currently, EUS-FNA constitutes the preferred method for the staging of esophageal cancer,<sup>5</sup> and the possible role of EUS-B-FNA in this situation is not known. The use of the endobronchial ultrasound through the esophagus for the needle aspiration of lung masses has only been reported in three cases of the first series by Hwangbo et al.<sup>3</sup> In the latter two cases of our paper, the diagnosis of bronchogenic carcinoma was obtained by means of EUS-B-FNA in the same session as the bronchoscopic techniques and with one single operator, which avoided further explorations.

Endobronchial ultrasound, used with both tracheal and esophageal approaches, offers almost complete staging of the

mediastinum with one instrument and in just one session.<sup>4</sup> In addition, in the same way that endobronquial ultrasound has demonstrated its utility in establishing the primary diagnosis of lung cancer,<sup>6</sup> transesophageal needle aspiration guided by endobronchial ultrasound could be applied to the same end, either as an initial technique or after performing bronchoscopic explorations.

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# Exposure to Second-hand Smoke and Dental Caries in Children $\ensuremath{^{\dot{+}}}$

### Exposición pasiva al tabaco y caries dental de los niños

Dear Editor:

In 1986, the report of the US Surgeon General and the National Research Council showed the available evidence about the adverse effects of passive exposure to tobacco smoke and health in children. Later reports identified more effects of second-hand smoke in children and indicated that this exposure was the cause of numerous consequences in exposed children.

There is conclusive evidence of the relationship between the passive exposure to tobacco smoke and the presentation of respiratory symptoms. <sup>3,4</sup> We present in this study the increased risk for dental caries in both primary as well as permanent teeth in children whose parents are smokers.

In a sample of 281 children aged 5–14 who were seen consecutively in a primary care center and in whom we initially were studying the relationship between the presence of caries with dental hygiene and dietary habits,<sup>5</sup> we would like to show the results that we have found with regards to the exposure to parental tobacco

smoke and the presence of caries in their children. The dental examination was done by two dentists in accordance with the methodology of the World Health Organization. By means of structured questionnaires, we determined the frequency of brushing. consumption of sweets and tobacco use of the children's parents. After the descriptive study, a multivariate logistic regression analysis was done, using the presence or absence of caries as a dependent variable, both in primary as well as in permanent teeth. Table 1 demonstrates that the prevalence of caries in the univariate analysis increases progressively as tobacco habit increases among the parents of the children, going from 12.4% in children whose parents do not smoke to 28.3% if both parents smoke, in permanent teeth. The same phenomenon is observed in primary teeth, going from 21.6% to 34.8%. After the multivariate analysis, adjusting for age, consumption of sweets, frequency of brushing and exposure to second-hand smoke, a progressive increase in the risk for caries is observed, which, although did not reach statistical significance, is consistent with studies that show the increase in the risk for caries with the exposure to tobacco smoke.<sup>6</sup> These data suggest a dose-response effect between the tobacco habit of the parents and the probability of having caries consistent with what is known regarding physiopathological mechanisms of and their biological plausibility.

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**Table 1**Presence or absence of caries in permanent and primary teeth, according to different variables.

	No	Yes	Crude OR	Adjusted OR
Caries of permanent teeth				
Age			1.54 (1.34; 1.77)	1.58 (1.35; 1.86)
Consumption of sweets				
No	92 (87.6%)	13(12.4%)	1	1
Yes	135 (77.6%)	39(22.4%)	2.04 (1.03; 4.04)	1.89 (0.79; 4.50)
Brush teeth at least once a week				
Yes	205 (83.3%)	41 (16.7%)	1	1
No	23 (65.7%)	12(34.3%)	2.61 (1.20; 5.70)	3.18 (1.10; 9.14)
Parents' tobacco use				
Neither parent smokes	85 (87.6%)	12(12.4%)	1	1
One parent smokes	88 (80.7%)	21(19.3%)	1.69 (0.78; 3.65)	1.47 (0.62; 3.47)
Both parents smoke	33 (71.7%)	13 (28.3%)	2.80 (1.16; 6.74)	2.09 (0.74; 5.86)
Caries of primary teeth				
Age			0.90 (0.82; 0.99)	0.89 (0.79; 0.99)
Consumption of sweets				
No	86(81.9%)	19(18.1%)	1	1
Yes	128 (73.6%)	46 (26.4%)	1.63 (0.89; 2.96)	1.85 (0.92; 3.74)
Brush teeth at least once a week				
Yes	194(78.9%)	52(21.1%)	1	1
No	21 (60.0%)	14(40.0%)	2.49 (1.18; 5.22)	2.20 (0.93; 5.23)
Parents' tobacco use	· · · · ·		,	
Neither parent smokes	76(78.4%)	21 (21.6%)	1	1
One parent smokes	86(78.9%)	23 (21.1%)	0.97 (0.49; 1.89)	1.12 (0.55; 2.28)
Both parents smoke	30 (65.2%)	16(34.8%)	1.93 (0.89; 4.19)	1.89 (0.82; 4.37)

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# Effectiveness of High-Flow Oxygen Therapy With Warm Humidification in a COPD Patient With Chronic Cough

# Eficacia de la oxigenoterapia de alto flujo con humidificación térmica en un paciente EPOC con tos crónica

Dear Editor:

The administration of home oxygen therapy (HOT) through a nasal cannula is an essential therapeutic measure in the treatment of patients with COPD and chronic respiratory failure. When it is well indicated, its benefits are clear and evident. However, the continued administration of oxygen can present important

side effects, among which are those related with the exposure to cold, dry air. Epistaxis, mucosa dryness, thick secretions that are difficult to eliminate and cough are some of the problems that our patients complain of with HOT.<sup>2</sup> Recently, "high-flow" oxygen therapy equipment has appeared on the market, which is able to provide all the gas inspired by the patient and which also incorporates the possibility to warm the air to 37 °C with a humidity of 100%. We present the case of a grade IV COPD patient with HOT and chronic cough in whom the application of oxygen through a system of active humidification was able to eliminate the cough.

## **Clinical Notes**

The patient is a 72-year old diagnosed with grade IV COPD treated with HOT at 21/min with nasal cannulae for the past 3 years. The patient used the O<sub>2</sub> some 20 h/day. Spirometry done after the administration of salbutamol showed: FVC 2500 (83%),

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