After a Five-Year Term...

R. Rodriguez-Roisin, MD, PhD

The first issue of BRN Reviews includes a series of six papers on sleep apnoea and alveolar hypoventilation disorders, and chronic obstructive pulmonary disease (COPD).

The first review focuses on obstructive sleep apnoea (OSA) and cardiovascular (CV) comorbidities, authored by *RD McEvoy,* from the *Adelaide Institute for Sleep Health, College of Medicine and Public Health, Flinders University, Adelaide, South Australia, Australia,* a talented first-class sleep apnoea disorders scholar. With a refined writing style, McEvoy conclusively points to four keynotes. First, the CV risk attributed to OSA may have been overemphasized in cohort studies because of residual confounding (known and unknown); second, cohort studies suggest that OSA confers a greater risk for stroke than coronary events and that the relationship between apnoea-hypopnoea index (AHI) and CV risk is curvilinear with very little risk in people until AHI exceeds 30-40 events per hour; third, OSA and central sleep apnoea (CSA)-related CV risks may also be quite heterogeneous within and between populations and relate more to overall hypoxic burden than to AHI; and, fourth, if the former three keynotes are right, the overall CV risk of patients enrolled in recent OSA randomised controlled trials (RCT), particularly those using composite CV end-points, may have been considerably less than assumed when designing these trials. It is therefore concluded that coupled with low levels of positive pressure device adherence, these RCTs may have been underpowered to reflect a CV benefit from sleep apnoea therapy.

The aforementioned article is complemented by a second outstanding contribution on the potential relationships of sleep apnoea and cancer, conducted under the leadership of *JM Marin,* a fine worldwide established OSA and COPD investigator along with *E Vicente* and *M Marin-Oto,* from *Hospital Universitario Miguel Servet, Department of Medicine, University of Zaragoza, Zaragoza,* and the *Clínica Universidad de Navarra, Pamplona, Spain.* In this excellent comprehensive review, it is concluded that there are no robust studies to support a

Received in original form: 14-02-2020
Accepted in final form: 17-02-2020
DOI: 10.23866/BRNRev:2020-M0065

relationship between the quantity and the quality of sleep and cancer as yet. Moreover, there is no evidence either to establish a causal relationship between OSA and cancer. Accordingly, it is recommended not to actively search for neoplasms in the first appointment of a patient with OSA, nor to modify the current practice. Nonetheless, the information available should alert general practitioners and specialists in regard to the potential risk of cancer as comorbidity in patients with OSA to consequently enforce smoothly the follow-up of patients while avoiding any alarming warnings.

The third paper is centred on new insights on obesity hypoventilation syndrome (OHS), presented by *V Ramírez Molina, JF Masa* and *J Gómez de Terreros,* from *Hospital San Pedro de Alcántara, Cáceres, Spain,* a consolidated team of clinical researchers actively involved in alveolar hypoventilation studies. Under the leadership of *JF Masa*, this review is devoted to OHS, defined by the presence of insufficient ventilation during sleep along with an abnormal high partial pressure of arterial carbon dioxide resulting in diurnal hypoventilation. As such, these patients have an increase in both mortality and morbidity along with a poor quality of life. The authors report the most salient insights related to OHS, its diagnosis and the therapeutic role of positive airway pressure, in particular the mechanisms that provide general improvement, physical relief, clinical applications, and management.

The fourth paper evaluates the current novelties of the use of high flow nasal therapy (HFNT) in acute respiratory failure. Written by *M Ferrer*, from *Hospital Clinic, Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), University of Barcelona, Barcelona,* a distinguished scholar who has focused his last two decades of research to acute and acute-on-chronic respiratory failure through the therapeutic use of non-invasive ventilation (NIV). Although he recalls that NIV remains the first-choice approach for hypercapnic acute respiratory failure (ARF) in COPD exacerbations, HFNT represents a promising alternative in patients with less severe respiratory acidosis. Importantly, even though HFNT represents the preferred therapeutic approach over NIV for patients with *de novo* ARF (a new ARF term implying the absence of underlying chronic cardiac or respiratory disorders, including immunosuppression), future studies are needed to confirm these recent indications. The combination of NIV along with HFNT during breaks from NIV after planned extubation provides the best supportive setting for patients at higher risk of re-intubation, while HFNT is useful to prevent re-intubation in low-risk patients. Thus, currently, NIV still remains the best strategic approach among all pre-oxygenation modalities before emergency intubation.

In the fifth review, *F García-Río*, from the *Servicio de Neumología, Hospital Universitario La Paz, IdiPAZ* and the *Departamento de Medicina, Universidad Autónoma de Madrid, Madrid, Spain,* a first-class worldwide COPD researcher, masterly concentrates on one of the most relevant pathophysiological abnormalities in COPD, namely lung hyperinflation (LH) in COPD from a clinical and therapeutic perspective. He reports that LH, a well-known concept of undisputable relevance, is progressively viewed as a treatable trait of COPD, sharing clinical and prognostic implications that need to be considered to phenotype these

patients. Although the information currently available does not allow for an evidence-based recommendation to establish in which patients, or how often, LH should be evaluated in patients with COPD, it may be likely that those patients with greater severity of airflow limitation, frequent exacerbations, severe dyspnoea, poor exercise tolerance and/or cardiovascular events, exhibit LH more frequently. If so, they may benefit from some interventional approaches. Under these circumstances, the calculation of some lung function outcomes such as functional residual capacity or, alternatively, the inspiratory capacity/total lung capacity ratio might be routinely considered over at least a three-year period to assess its progression. This indeed represents a potent take-home message for respiratory specialists.

The sixth review featured by *JJ Soler-Cataluña* and *JL López-Campos*, from *Hospital Arnau de Vilanova-Lliria, Valencia,* and *Hospital Virgen del Rocío, Spain,* respectively, address the relevance of symptom variability for COPD control and management. Both authors are highly qualified and talented scholars who have built a solid reputation as clinical researchers within the international COPD community. As a result, they expertly draw our attention to the wide variety of respiratory symptoms that, aside exacerbations, unremittingly affect patients with stable COPD. This important message for all clinicians devoted to the care and management of COPD is solidly based on a wide body of evidence-based studies devoted to the presence of symptom variability observed in approximately half of COPD patients. The early morning represents the worst period of time referred by patients, but nighttime is also considered an important period. Dyspnoea is the most frequent symptom and its perception is associated with a limitation of daily morning activities. Likewise, COPD severity or previous exacerbation history are also risk factors involved in the variation of symptoms. However, even mild or non-exacerbated patients also show this clinical variability whose time-dependence can have important implications on various patient-related outcomes, namely life activities, sleep quality, exacerbations or health-related quality of life. In a way -they conclude-, this can bring an opportunity to further identify symptoms and treat them more properly to improve the original outcomes.

Finally, allow me please to finish with a personal touch as this editorial brings me the last opportunity as Editor in Chief of *BRN Reviews* to address a few farewell words to everyone, readers, authors, and referees, the fundamental triad of any journal, after this very intense and inspiring period of five years. I have to stress, first, my most sincere appreciation to the Executive Board of BRN for asking me to launch and to run the journal from the very early 2015 till today. It has been an absolute pleasure and a great personal experience, as well as a great privilege. I have learned so much from each of the individual contributions, in total 96 peer-reviewed published manuscripts undoubtedly made by the best worldwide experts from the international respiratory community as far as I am concerned. Nonetheless, *BRN Reviews* has a subject pending, namely the mandatory need for bibliometrics to eventually consolidate its actual position within the worldwide editorial market, a task that no doubt, Dr Alvar Agustí, the new Editor in Chief, widely known, will certainly achieve successfully. Be

it as it may, however, it is also fair to admit that experience teaches that such bibliometric achievements usually take a big dip in being accomplished, particularly for review journals exclusively. To end, let me also express my most sincere appreciation to everyone who has been directly involved and has played a key role in this 5-year term editorial venture. In this regard, I want to express my deep gratitude to the editorial staff (*Laura Casares, Nuno Soares*, *Mirjam Hillenius,* and *Ricard Permanyer*), for their gigantic effort and devoted work while providing a special touch of class to put together the individual scientific content contributions with the required high standards of quality that a journal such as *BRN Reviews* needs to achieve. Indeed, it will be hard to forget this enthralling editorial challenge in my professional career.

It is then time now for me to say, with my most sincere appreciation, *cheerio, adiós, adéu-siau*...