



CORRESPONDENCE

Treatment strategies for Cheyne–Stokes respiration

To the Editors:

In a recent issue of the *European Respiratory Journal*, GABOR *et al.* [1] reported the effects of standard cardiac resynchronisation therapy (CRT) on nocturnal central sleep apnoea (Cheyne–Stokes respiration). CRT was shown to reduce Cheyne–Stokes respiration significantly in six out of 10 patients.

The study was performed in Canada between 1999 and 2002, which is the same era as when new generations of beta-blockers (*e.g.* metoprolol, carvedilol) were introduced into the market. The authors declare that the medication remained unchanged during the study, but that might be true for substance classes only and not for the type of beta-blocker. Substitution of beta-blockers had been a routine measure at that time in many industrialised countries [2].

According to our own data (currently unpublished), there seems to be a statistically significant and clinically relevant effect of high-dose beta-blocker treatment on the prevalence and severity of nocturnal central apnoeas and hypopnoeas. It could be demonstrated in three well-matched cohorts (no beta-blocker $n=16$; metoprolol $n=16$; carvedilol $n=13$) of chronic heart failure patients (New York Heart Association II and III) that both beta-blockers, *i.e.* metoprolol and carvedilol, could

significantly reduce the combined apnoea–hypopnoea index (19.5 ± 14.4 versus 7.4 ± 8.5 versus 8.7 ± 8.1 per hour of sleep, respectively).

We suggest that the results of the study by GABOR *et al.* [1] should be related to the presence, dosage and type of beta-blocking medication in order to discriminate between the effects of cardiac resynchronisation therapy and potential pharmacological influences.

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REFERENCES

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- 2 Franciosa JA, Massie BM, Lukas MA, *et al.* Beta-blocker therapy for heart failure outside the clinical trial setting: findings of a community-based registry. *Am Heart J* 2004; 148: 718–726.

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Endoscopic ultrasound-guided biopsy in the chest

To the Editors:

We read with interest the editorial comment on endoscopic ultrasound-guided fine-needle aspiration (EUS-FNA) biopsy in the chest by VILMANN and LARSEN [1].

With conviction, they claim the importance of EUS-FNA in the work-up of enlarged mediastinal lymph nodes, especially in lung cancer patients. They even state that: “we really do not need additional proof before EUS-FNA is considered the gold standard for invasive staging of nonsmall cell lung cancer and for diagnosis of posterior mediastinal lesions”.

However, as they also state in their discussion, no studies have actually compared mediastinoscopy (the current gold standard) and EUS-FNA in a controlled and blinded study design. Moreover, other concerns about EUS-FNA can be raised, which are not mentioned in their comments, such as the following.

First, according to VILMANN and LARSEN [1], the sensitivity of EUS-FNA biopsies of mediastinal lymph nodes is very high. This may be true for the nodes within reach of the transoesophageal needle. Due to the anatomical position of the oesophagus, only nodes in the distal and posterior

mediastinum can be reached. The right-sided mediastinal nodes 2R and 4R cannot be reached by EUS-FNA in a significant number of cases, as is confirmed in the article by RINTOUL *et al.* [2], published in the same issue of the *European Respiratory Journal*. Here the diagnosis of the 2R and 4R nodes was obtained using a transbronchial approach [2].

Before EUS-FNA is claimed to be the gold standard for invasive staging of nonsmall cell lung cancer, a prospective study should demonstrate the number of cases of enlarged lymph nodes which are out of reach for EUS-FNA, but can be reached by mediastinoscopy, the current gold standard. Such a study would demonstrate a more accurate sensitivity of EUS-FNA in an unselected group of lung cancer patients with enlarged lymph nodes.

Secondly, VILMANN and LARSEN [1] begin their editorial with the statement that “tissue diagnosis of pathological lesions located in the mediastinum has been difficult to obtain by non-surgical methods”. However, they forget to mention transbronchial needle aspiration (TBNA), a technique known since 1949 [3], which has been used with the flexible bronchoscope since 1979 [4]. This nonultrasound-guided procedure has a diagnostic sensitivity of >70% in many studies [5–7].