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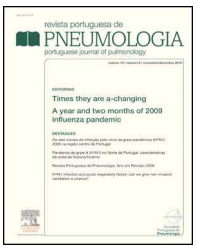

EDITORIAL

# Access to the mediastinum—The standard has changed

## Abordagem do Mediastino—A norma foi alterada

100 years ago, lung cancer was a rare disease.[1] Over time it has become one of the leading causes of cancer death worldwide.[2] Along with this the diagnostic and also the therapeutic implications have changed several times over the last few decades. In 1968 the first TNM description was published, trying to standardize the tumor staging and thereby the specific therapeutic recommendations. Today the 7th edition of the TNM system is still in use and the fact that the staging of the mediastinum is one of the most important topics has still not been challenged.[3]

In 1964 Werner Maaßen published his first full report about mediastinoscopy as a staging technique and in the following years the technique was established as the gold standard for the mediastinum.[4]

Even after the implementation of improved imaging techniques like computer tomography (CT) and Positron emissions tomography (PET), the surgical option was not discussed.[3]

Watching and learning from gastroenterologists, Olympus Medical introduced the world's first curved linear array ultrasonic bronchoscope in 2004. The development of the endoscope had started more than 5 years earlier based on a request to minimise existing EUS-FNA technology so that can be used for diagnosis from within the bronchial system.

The success story of EBUS-TBNA starts in 2003 with the publication in the journal *Thorax* by Krasnik and Vilmann,[5] followed by an article by Yasufuku in *Chest*.[6] Both articles gave an initial description of the principle of EBUS-TBNA. In 2006, the biggest case series on 502 patients showed that EBUS-TBNA resulted in 93% diagnostic yield, a sensitivity of 94%, specificity of 100% and accuracy of 94%.[7]

Over the last ten years the evidence about EBUS-TBNA has grown rapidly and after several meta-analyses[8–10] the endoscopic technique is quoted now as the first test for evaluation of the mediastinum, replacing mediastinoscopy.[11]

In this issue Dr. Bugalho[12] writes about his experience with this method in Portugal. The paper nicely demonstrates that there has been a rapid learning curve; the results achieved are consistent with previous published results and, especially in relation to the initial results, the negative predicted value has increased dramatically. Particularly in line with the most recent publications on this topic,[13–16] it is clear that nowadays not only have the tissue samplers been adapted to the new technique, but also the tissue readers, mainly cytopathologist, primed to read cells instead of tissue.

And today? As mentioned, EBUS-TBNA has become the Gold standard for diagnosing and staging the mediastinum. But we still need to get better. Due to modern oncological options, cell analysis is no longer enough. Molecular staging will become the future standard and therefore we have to work on our techniques, to provide sufficient material for such questions.But for the moment, endobronchial ultrasound has replaced mediastinoscopy.

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