Cervical ultrasound in operable non-small cell lung cancer

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We read with interest the recent article [1] in the journal on the role of cervical ultrasonography in the staging workup of patients with otherwise operable non-small cell lung cancer (NSCLC). We were impressed by the simplicity of the study and the ability of cervical ultrasound to diagnose metastatic neck nodes in patients with impalpable nodes. We assume that these patients would otherwise have gone in for a mediastinoscopy and even thoracotomy and lung resection. Skip metastases are known in lung cancer and if the results of mediastinoscopy had been negative, they would have fallaciously been staged as T1–3, N0–1 tumors and treated with lung resection. This would not only have contributed to incorrect staging but also increased the number of ‘futile thoracotomies’. Even assuming a low pick up rate of 4% (other studies show a higher pick up rate for cervical lymph nodes, probably because they included higher stages of disease also), it is an important investigation in the preoperative workup of patients with operable lung cancer as it is a non-invasive, zero morbidity, low-cost investigation and spares a proportion of patients from undergoing unnecessary major surgery. As the authors rightly point out, we have readily accepted other investigations in metastatic workup (CT scans of liver and adrenals, brain) with much less yield. We would also like to emphasize that if radiological suspicion of metastasis is high, a formal lymph node biopsy should be done even if the fine needle aspiration cytology is negative.

Though it is fortuitous that the procedure has proven to be cost effective also, it should be strongly recommended in the routine preoperative workup even if it is marginally cost-ineffective, as it is difficult to put a price on the morbidity of a futile thoracotomy! Cervical ultrasonography would be even more useful in stage IIIA disease as it would not only obviate the need for an unnecessary mediastinoscopy, but it would also reclassify these patients as stage IIIB, which is usually treated with chemoradiotherapy rather than with neoadjuvant chemotherapy followed by surgery. We note that the study accrued patients between August 1997 and November 1998 and wonder whether the results of this study have prompted the incorporation of cervical ultrasound as part of the routine workup of patients with operable lung cancer in the authors’ unit. If so, it would be interesting to know further updated results of the procedure with larger numbers. We have started performing routine ultrasonography of the neck in patients staged I to IIIA prior to surgical resection and/or mediastinoscopy and will be able to add to the database on occult N3 disease in otherwise operable NSCLC.

Reference


Reply to the Letter to the Editor

Reply to Pramesh et al.

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We appreciate the kind comments from Mr Pramesh and his colleagues on our paper. We are in the process of gathering more data on this subject, and has gone as far as having purchased our own portable ultrasound unit so that our surgical residents can do the initial neck screening.

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before referring to our more experienced radiologist colleagues for FNA. It is my firm belief that our specialty is evolving fast, and the future generation of thoracic surgeons may be expected to use portable ultrasound (for example, to accurately locate pleural effusions before drainage) as an extension of their bedside clinical skills.

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Letter to the Editor
Systolic ventricular filling
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It is disappointing to see yet another review appearing in the surgical literature promoting a physiological concept on the anatomic basis of the ‘ventricular myocardial band’ [1]. It is well known that disputation is the lifeblood of science, but it is equally accepted that those promoting a new concept should first examine, and refute, any evidence that might invalidate it. As far as I am aware, neither Dr Torrent-Guasp, nor his co-workers, have offered any explanation as to why previous accounts of the architecture of the ventricular mass are deficient. In fact, there is a wealth of anatomic evidence [2–4] to show that, rather than being arranged in the form of skeletal muscle, with an origin from one arterial root, and an insertion at the other, as claimed by Dr Torrent-Guasp and his supporters [1], the ventricular mass is arranged in the form of a modified blood vessel, with each myocyte anchored to its neighbour within a supporting fibro-collagenous matrix.

If the ventricular mass were truly arranged in the form of the ‘ventricular myocardial band’, then the structure of the fibrous matrix determining this arrangement would be demonstrated by techniques such as serial histological sectioning or magnetic resonance imaging. In reality, these techniques show the ventricular myocardium to be arranged in a complex three-dimensional meshwork of tangential and intruding fibres [2,3]. Dissection techniques have been used to confirm this arrangement [4], but those using the destructive approach of dissection recognise that this methodology unequivocally produces artefacts, since the technique, of necessity, interrupts the integrity of the supporting fibro-collagenous matrix. For this reason, the investigation of Jouk and colleagues [5] is key in the ongoing debate, since these workers have confirmed the basic arrangement of intermingling tangential and intruding fibres, but without needing artefactually to take apart the musculature making up the ventricular mass.

I recognise, of course, the prerogative of Torrent-Guasp to question the currently accepted arrangement of the ventricular mass, with its physiological and clinical correlates. When questioning this generally accepted hypothesis, nonetheless, I emphasise again that it is incumbent upon Torrent-Guasp, and those who now support him [1], to demonstrate its deficiencies. This they have singularly failed to do. Those who seek to interpret the known physiological facts in the fashion suggested by Torrent-Guasp and his colleagues, therefore, should be aware of the major shortcomings of their anatomical analysis.

References


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Reply to the Letter to the Editor
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