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Convex Endobronchial ultrasound–guided placement of fiducial markers in central lung tumors

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To the Editor

We read with interest three articles regarding EBUS guided fiducial marker placement in tumors published in the *Journal of Bronchology and Interventional Pulmonology* in recent issues. In the January 2016 issue Belanger et al described the “first series of patients in which convex-probe EBUS was used to deliver fiducials to hilar and mediastinal lymph nodes as well as central thoracic lesions”.¹ This was performed with gold wire fiducials (Visicoil™; IBA Dosimetry Bartlett, TN) in 5 patients requiring stereotactic ablative radiotherapy.

In the April edition Argento et al described a similar technique by which fiducial (Visicoil™, IBA Dosimetry Bartlett, TN) gold markers were placed using convex probe EBUS with a method that “simplifies prior descriptors of the technique, eliminating any extra material (bone wax; guide wires) and broadens the applicability to central parenchymal lesions.”²

A third article described “a novel use of linear EBUS and we demonstrate that it can be an excellent tool for the safe insertion of fiducial marker and centrally located mediastinal or hilar masses”. The authors describe the placement of one Visicoil™ (IBA Dosimetry Bartlett, TN) marker in one patient.³

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Fiducial markers in peripheral lung lesions have been widely used to guide highly focused stereotactic radiotherapy techniques. More recently, with the increased use of very conformal radiotherapy approaches also for centrally located lung tumors and locally-advanced lung cancers involving regional mediastinal and/or hilar lymph nodes, fiducial marker placement using EBUS has gained increasing interest.

We previously described a case series describing the above techniques using convex probe EBUS to place fiducial markers (Visicoil™; IBA Dosimetry Bartlett, TN) in a variety of locations, most of which were centrally located tumors or lymph nodes.⁴ This technique was performed without the use of adjuvant tools such as bone wax or surgical lubricant. Markers were loaded into the proximal handle after the stylet was removed and then pushed through the needle into the lesion. Convex EBUS was used to implant 14 markers in 6 patients into the primary tumor (not counting those additional markers placed in lymph nodes) located in parenchymal, hilar or paratracheal location. Retention of markers was 89.5% after > six weeks of radiochemotherapy. Thus we commend the authors of the referenced studies and note that our previously published experience did describe safe placement of fiducials using this technique into central parenchymal and mediastinal masses.

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