



EBUS-FNA OF ENLARGED MEDIASTINAL NODES -UNUSUAL CYTOLOGICAL FINDINGS OF HEMOSTATIC SUBSTANCES

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Objective:

Introduction: Oxidized cellulose is a polyanhydroglucuronic acid polymer, one of the most commonly used absorbable hemostatic substances during cardiovascular and thoracic surgery. Estimation is that in 3% of cases, some inflammatory reaction will occur mainly due to excess use of the material.

Aim: To highlight these unusual cytological findings in the differential diagnosis of enlarged mediastinal nodes.



Methods:

Methods: The archival records of seven patients over 18 months were included in this study. All patients underwent lung surgery for malignant lung tumors; four adenocarcinomas, two squamous cell carcinomas, and one typical carcinoid. In the postoperative follow-up on MSCT and/or on PET-CT, predominantly enlarged mediastinal nodes appeared, which were characterized as a possible disease recurrence, only in two cases surgical hemostatic agent was suspected. Endobronchial ultrasound-guided transbronchial fine needle aspiration (EBUS-FNA) was the method of choice for diagnosis establishment in six cases. The procedure was done by an experienced pulmonologist. Obtained materials were transferred by a cytotechnologist to glass slides, smeared, and labeled appropriately. In three cases a cytologist performed rapid on-site evaluation (ROSE) to determine sample adequacy. Materials obtained by EBUS and other bronchoscopic FNAs routinely were briefly air-dried, stained with May Grünwald Giemsa (MGG) staining, and evaluated by a cytologist after screening.

Result:

Results: FNA samples showed foreign material with varying amounts of lymphoid elements, an admixture of other inflammatory cells, some bronchial epithelium, and in two cases a foreign body reaction with multinucleated giant cells and epithelioid cells. Oxidized cellulose was abundant and presented as elongated dense basophilic fragments of various sizes of somewhat rectangular shape, partially degenerated, with an abundant amorphous eosinophilic to amphophilic background material. Cytological diagnosis was exogenous material, corresponding to a hemostatic agent.



Conclusion:

Conclusion: The literature on the cytological description of oxidized cellulose in lesions that mimic cancer recurrence is scarce. Studies show that EBUS-FNA is an accurate, minimally invasive, and quick procedure for establishing rare cytological diagnosis of radiologically enlarged mediastinal nodes.