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Poster #23

BIOPSY OF SUSPICIOUS OSSEOUS LESIONS IN PATIENTS WITH A KNOWN PRIMARY MALIGNANCY: RATE OF ALTERNATE DIAGNOSIS AND COMPLICATION RATE.

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(Presented by: Alexander Grushky, MD, Beaumont Health System)

Purpose: In patients with multiple suspicious osseous lesions in the setting of a known primary malignancy, we sought to determine the rate at which tissue sampling of these osseous lesions yielded a different diagnosis from the primary malignancy. Secondary objective included determination of the complication rate in these biopsy procedures, including the need for re-biopsy.

Materials and Methods: Medical records for patients undergoing CT guided biopsy of a suspicious osseous lesion were retrospectively reviewed over a 12 month period from 2017 to 2018. There were 78 patients that underwent CT guided biopsy. Inclusion criteria for this study included: known primary cancer diagnosis, greater than three suspicious osseous lesion, and targeted CT guided biopsy performed by a musculoskeletal radiologist. The results of the biopsy lesions were then categorized as matched pathologic diagnosis, alternate pathologic diagnosis, no evidence of malignancy, and non-diagnostic or unsatisfactory sample.

Results: There were a total of 34 out of 80 CT guided biopsies that met the inclusion criteria. Of those included, 74% (n= 25) had matched pathologic diagnosis, 9% (n= 3) had an alternative pathologic diagnosis, 9% (n= 3) had no evidence of malignancy, and 9% (n= 3) had a non-diagnostic or unsatisfactory sample. Alternative diagnosis included: breast cancer with different receptor profile, bone island, and adenocarcinoma unspecified. Of the 34 bone biopsies, no immediate post-procedural complications were identified, and 3% required a re-biopsy (n= 1).

Conclusion: In patients with known primary malignancy and multiple suspicious osseous lesions, CT-guided biopsy of a suspicious osseous lesion represented matched pathologic diagnosis of the primary malignancy in 74% of cases. An alternative diagnosis was obtained in 9% of cases, and there was no evidence of malignancy in 9% of cases. Our results suggest that given the rate of alternative pathologic diagnosis in this patient population, careful consideration should be made when determining the need for biopsy

Modality % - Radiography / Fluoroscopy:	0
Modality % - CT:	100
Modality % - MRI:	0
Modality % - US:	0
Modality % - Nuclear Medicine:	0