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Diagnostic Value of Endoscopic Ultrasound-Guided Fine Needle Aspiration of Intra-Abdominal Lymph Nodes in Patients with Concurrent Biopsy of Intra-Abdominal Tumors

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BACKGROUND

- Diagnostic endoscopic biopsy of intra-abdominal lesions may be performed prior to surgical resections.
- Endoscopic ultrasound-guided fine needle aspiration of intra-abdominal lymph nodes may also be performed to:
  - Yield more information
  - Allow for more accurate staging
- We evaluate the additional staging information concurrent fine needle aspiration of intra-abdominal lymph nodes provided

DESIGN

- We included all patients at our institution from January 1, 2000 to March 30, 2015 who, during the same endoscopic procedure, had:
  - Endoscopic ultrasound guided fine needle aspiration of an intra-abdominal lymph node AND
  - Endoscopic ultrasound guided fine needle aspiration OR a surgical biopsy of an intra-abdominal lesion
- We excluded all patients for whom the final diagnosis was lympho-proliferative
- Primary lesions were:
  - Pancreatic
  - Upper gastrointestinal tract
  - Biliary tract
  - Gallbladder
- 63 total patients

RESULTS

- 44 patients with concurrent endoscopic ultrasound guided fine needle aspiration of an intra-abdominal lesion and lymph nodes (Table 1)
- 19 patients with concurrent biopsy of intra-abdominal lesion and endoscopic ultrasound guided fine needle aspiration of intra-abdominal lymph nodes (Table 2)

TABLE 1

	Insufficient lesions (4)	Negative lesions (8)	Atypical lesions (16)	Suspicious lesions (5)	Positive lesions (11)
Insufficient Lymph Node tissue (6)	0	1	2	1	2
Negative Lymph Node (20)	3	6	10	1	0
Atypical Lymph Node (6)	0	0	2	3	1
Positive Lymph Node (12)	1	1	2	0	8

TABLE 2

	Negative lesions (13)	Positive lesions (6)
Insufficient Lymph Node tissue (2)	2	
Negative Lymph Node (5)	5	
Atypical Lymph Node (1)	1	
Positive Lymph Node (11)	5	6

RESULTS

- 44 patients with concurrent endoscopic ultrasound guided fine needle aspiration of an intra-abdominal lesion and lymph nodes, the diagnostic breakdown was:
  - 4 insufficient (9%)
  - 8 negative (18%)
  - 16 atypical (36%)
  - 5 suspicious (11%)
  - 11 positive (25%)
- 19 patients with concurrent biopsy of intra-abdominal lesion and endoscopic ultrasound guided fine needle aspiration of intra-abdominal lymph nodes, the diagnostic breakdown was:
  - 13 negative (68%)
  - 6 positive (32%)

CONCLUSION

- Concurrent endoscopic ultrasound guided fine needle aspiration of intra-abdominal lymph nodes with endoscopic ultrasound guided fine needle aspiration or biopsy of intra-abdominal lesions offers important additional diagnostic information.
- We found a total of 9 cases in which the intra-abdominal lesion was not definitive for malignancy, but the lymph node was positive.
- We found 23 cases with positive lymph nodes, who were upstaged based on this information.
- Therefore, we conclude endoscopic ultrasound guided fine needle aspiration offers vital diagnostic information and should be performed when feasible as part of a pre-operative work-up.