First author	Pleural cases (resected)	Pre-operative percutaneous biopsy, n (%)	Type	Yield, n (%)
Boddeart	80	20 (25%)	CT FNA	9/20 (45%)
Cardillo	110	23 (20.9%)	FNA	9/23 (39.1%)
Chu	40 (39)	14/40* (35%)	Puncture biopsy	9/14 (62%)
Enon	25	0 (0%)		
Guo	39	12 (30.7%)	CT FNA	2/12 (16.7%)
Gupta	28	14 (50%)	13 FNA 11 CNB	1/13 (7.7%) FNA 11/11 (100%) CNB
Harrison–Phipps	84	22 (26%)	CT guided percutaneous	10/22 (45%)
Lahon	157	23 (14.6%)	CT guided percutaneous	9/23 (39.1%)
Liu	21	1 (4.8%)	CT guided FNA	0%
McGuire	26 (23)	22/26* (84.6%)	22 FNA 13 CNB	16/22 (72.7%) Total
Rena	21	8 (38.1%)	Transthoracic FNA	3/8 (37.5%)
Santos	34	5 (14.7%)	CT FNA	2/5 (40%)
Tapias	59	21 (35.6%)	17 FNA 4 Core	3/17 (17.6%) FNA 3/4 (75%) CNB
Vejvodova	22 (20)		CT CNB	6 (27.3%)*
Yeom	41 (33)	21/33 (63.6%)	CNB	15/21 (80.9%)

FNA – fine needle aspiration, CNB – core needle biopsy, CT – computed tomography.
*Denominator = total number of patients rather than number resected.