

Supplemental Table 1. Clinical and Pathologic Characteristics of the Study Group and Excluded Patients.

Characteristic	Study Group (N=759)	Excluded Cases (N=61)	P Value*
Sex – no. (%)			0.07
Male	593 (78)	54 (89)	
Female	166 (22)	7 (11)	
Age – y			0.13
Mean	60.9	58.7	
Median (range)	61 (18-86)	58 (35-84)	
Histology in the Resection Specimen – no. (%)			0.95
Epithelioid	483 (64)	39 (64)	
Biphasic	245 (32)	20 (33)	
Sarcomatoid	31 (9)	2 (3)	
Primary location – no. (%)			0.35
Left Pleura	323 (43)	22 (36)	
Right Pleura	436 (57)	39 (64)	
Clinical stage† – no. (%)			0.06
Stage I	14 (3)	0 (0)	
Stage II	50 (10)	2 (5)	
Stage III	344 (66)	31 (84)	
Stage IV	112 (21)	4 (11)	
Type of Surgery – no. (%)			0.25
Pleurectomy/Decortication	240 (32)	24 (39)	
Extrapleural Pneumonectomy	519 (68)	37 (61)	

* P value comparing patients with histologic material available for evaluation included in the study and excluded patients who had no biopsy specimen material available for evaluation.

† 24 patients in the excluded group and 239 patients in the study group did not have clinical staging information available.

Supplemental Table 2. Relationship between Histology Findings in the Initial Thoracoscopic Biopsies and Final Diagnosis in the Resection Specimen in Diffuse Malignant Pleural Mesothelioma (n=728)*				
Resection Specimen Histology				
Number (% of initial biopsy)				
	Epithelioid	Biphasic	Sarcomatoid	Total
Thoracoscopic Biopsy Histology				
Epithelioid	448 (81)	106 (19)	0 (0)	554
Biphasic	14 (11)	115 (86)	4 (3)	133
Sarcomatoid	0 (0)	5 (15)	28 (85)	33
Indeterminate†	5 (63)	3 (38)	0 (0)	8
Total	467 (64)	229 (32)	32 (4)	728

* Eight patients diagnosed with malignant mesothelioma with indeterminate histologic type on initial biopsies were excluded from statistical analysis.

† Not all percentages total 100% due to rounding.

Supplemental Table 3. Relationship between Histology Findings in the Core Biopsies and Final Diagnosis in the Resection Specimen in Diffuse Malignant Pleural Mesothelioma (n=31)

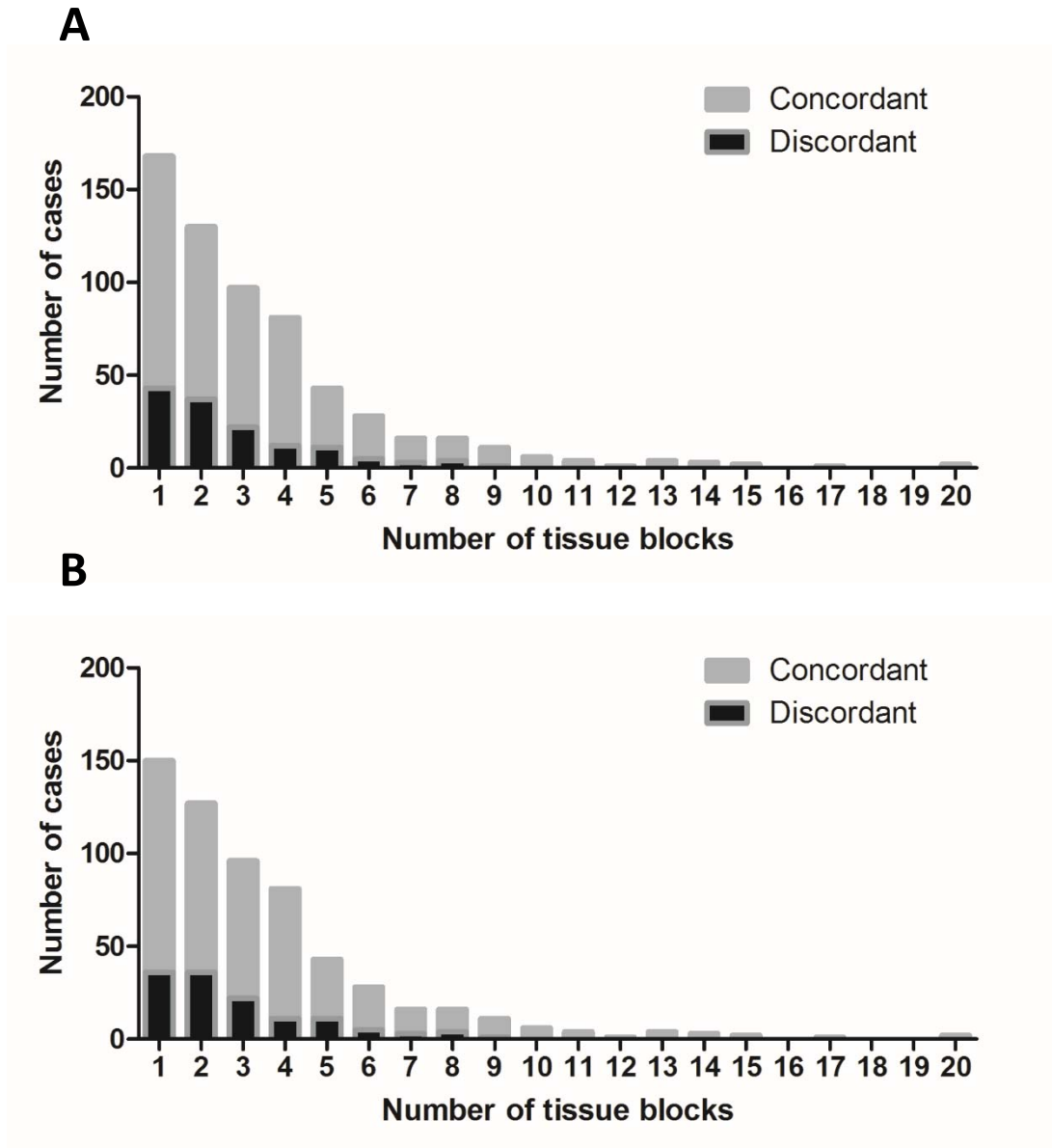
Resection Specimen Histology				
Number (% of initial biopsy)				
	Epithelioid	Biphasic	Sarcomatoid	Total
Core-needle Biopsy Histology				
Epithelioid	15 (71)	6 (29)	0 (0)	21
Biphasic	1 (14)	6 (86)	0 (0)	7
Sarcomatoid	0 (0)	2 (67)	1 (33)	3
Total	16(52)	14 (45)	1 (3)	31

Supplemental Table 4. Comparison of positive predictive value, sensitivity, specificity, and positive test likelihood ratios of histology in initial thoracoscopic biopsy for each type of diffuse malignant pleural mesothelioma (n=720)

	Positive Predictive Value (%)	Sensitivity (%)	Specificity (%)	Positive Likelihood Ratio
Thoracoscopic Biopsy Histology				
Epithelioid	80.9	97.0	58.9	2.4
Biphasic	86.5	50.9	96.4	14.0
Sarcomatoid	84.8	87.5	99.3	120.4

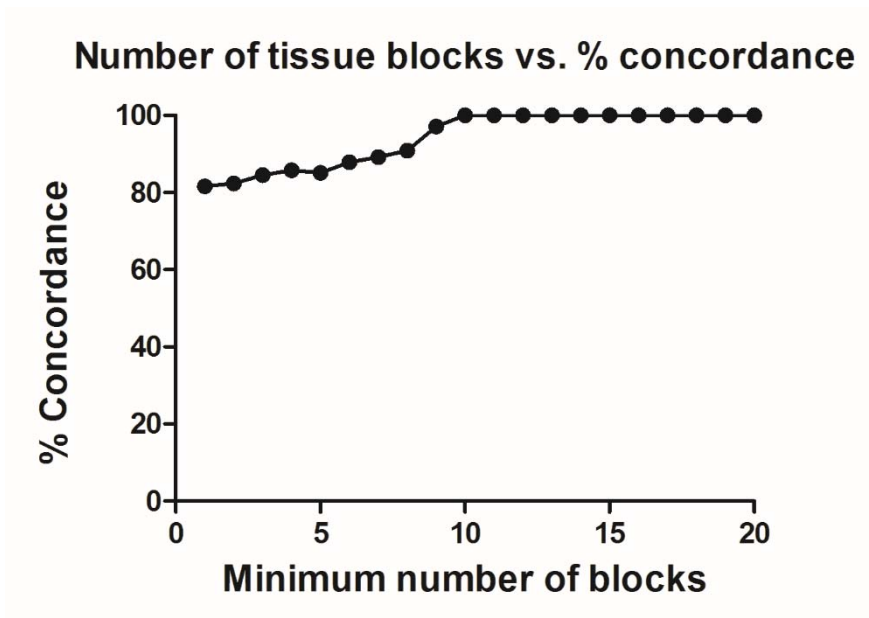
Supplemental Table 5. Comparison of positive predictive value, sensitivity, specificity, and positive test likelihood ratios of histology in initial core biopsy for each type of diffuse malignant pleural mesothelioma ($n=31$)

	Positive Predictive Value (%)	Sensitivity (%)	Specificity (%)	Positive Likelihood Ratio
Core-needle Biopsy Histology				
Epithelioid	71.4	93.8	60.0	2.3
Biphasic	85.7	42.9	94.1	7.3
Sarcomatoid	33.3	100.0	93.3	15.0

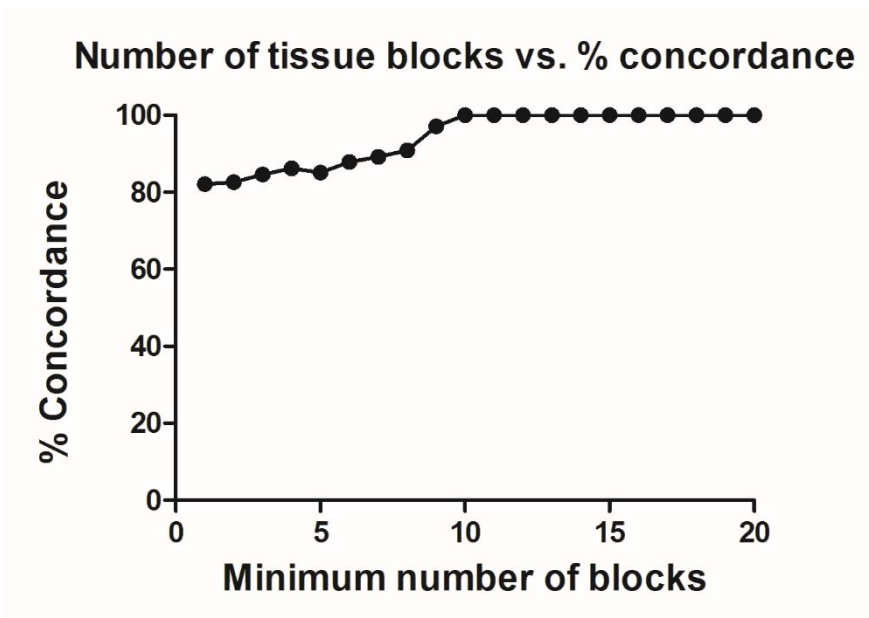


Histograms plotting the number of tissue blocks in concordant and discordant core and thoracoscopic biopsies (A) and thoracoscopic only biopsies (B).

A



B



Relationship between the diagnostic accuracy (% concordance) and minimum number of tissue blocks sampled in core and thoracoscopic biopsies (A) and thoracoscopic only biopsies (B).