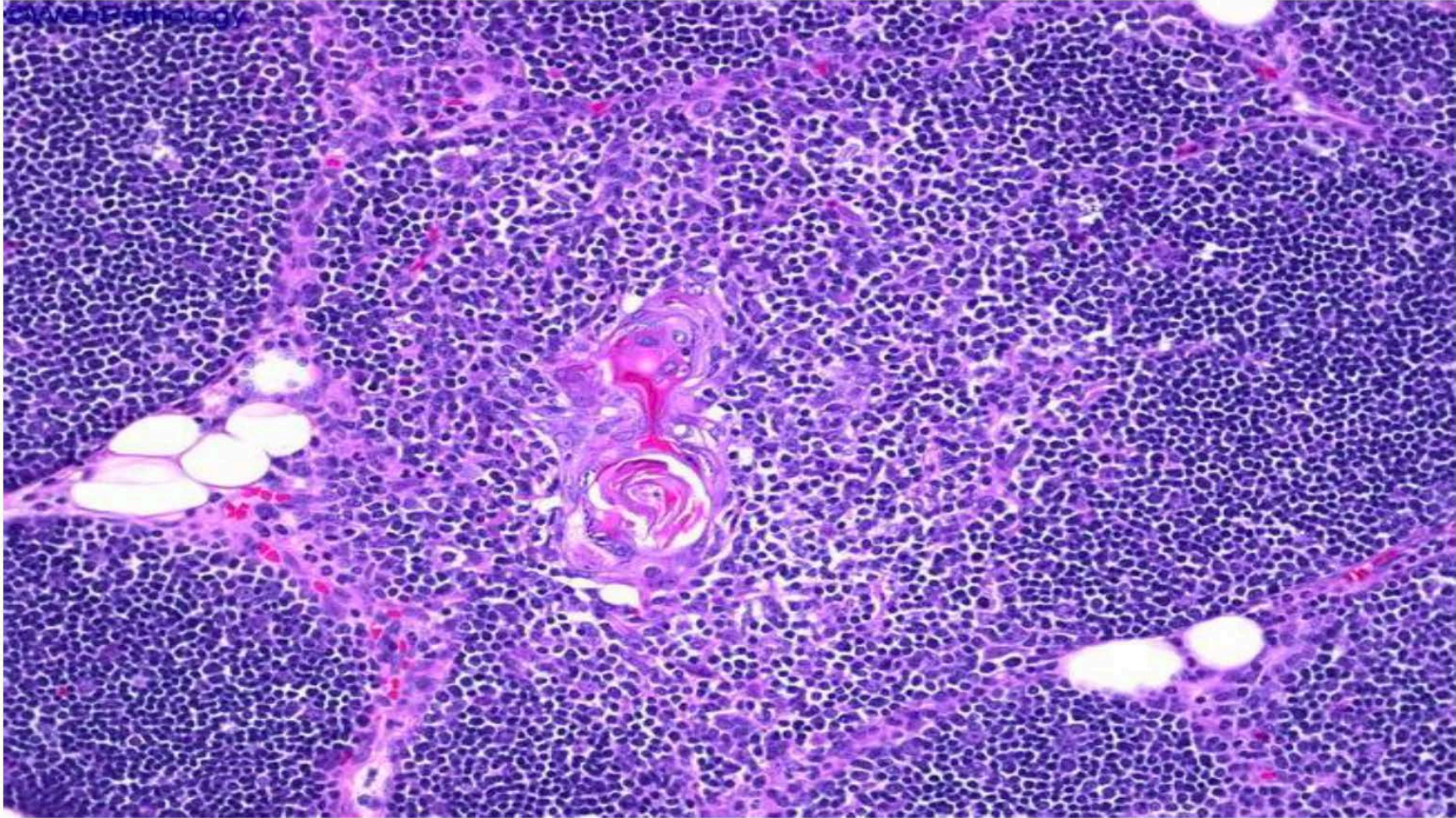




radiotherapy for thymic tumors

Ioannis Georgakopoulos MD, PhD
Radiation Oncologist

the thymus



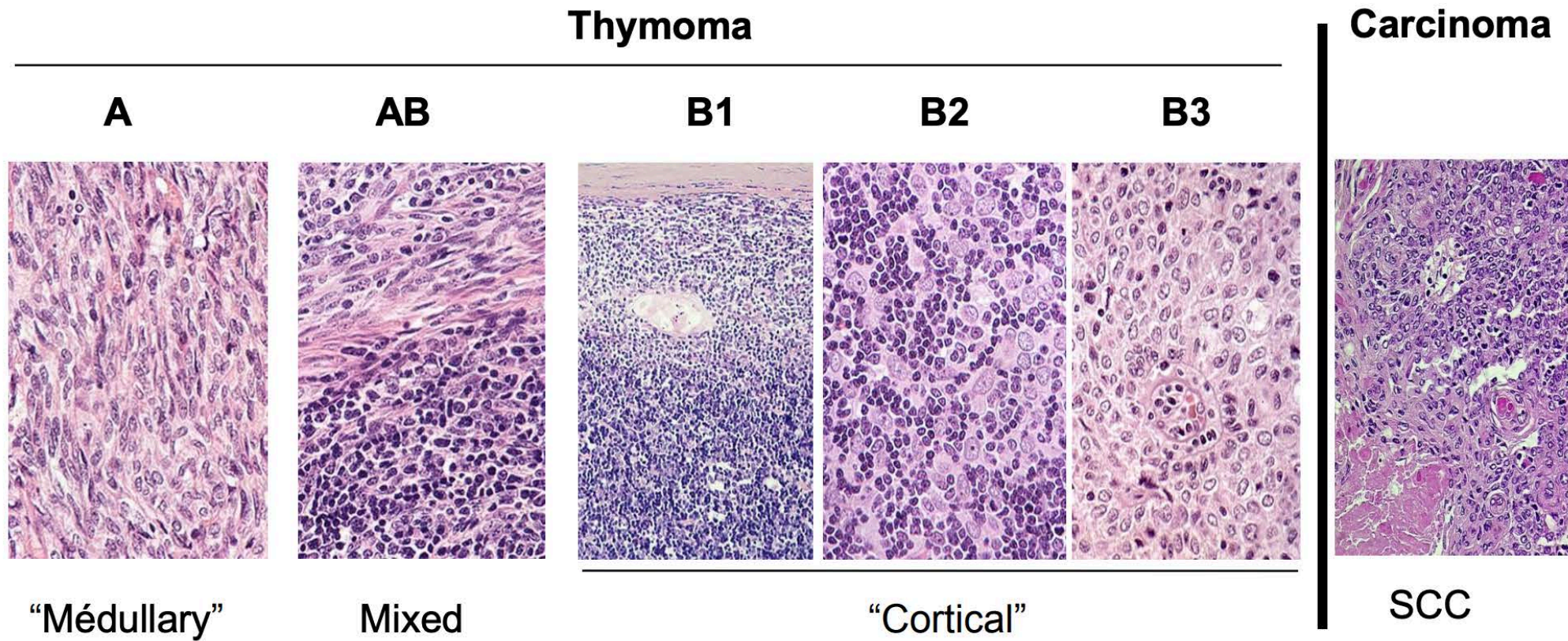
Masaoka – Koga staging system



Akira Masaoka
1930-2014

stage	Definition
I	grossly & microscopically completely encapsulated tumor
IIa	microscopic transcapsular invasion
IIb	macroscopic invasion into thymic or surrounding fatty tissue or grossly adherent to but not breaking through mediastinal pleura or pericardium
IIIa	macroscopic invasion into neighboring organs without invasion of great vessels
IIIb	macroscopic invasion into neighboring organs with invasion of great vessels
IVa	pleural or pericardial dissemination
IVb	lymphogenous or hematogenous metastasis

WHO histopathologic classification



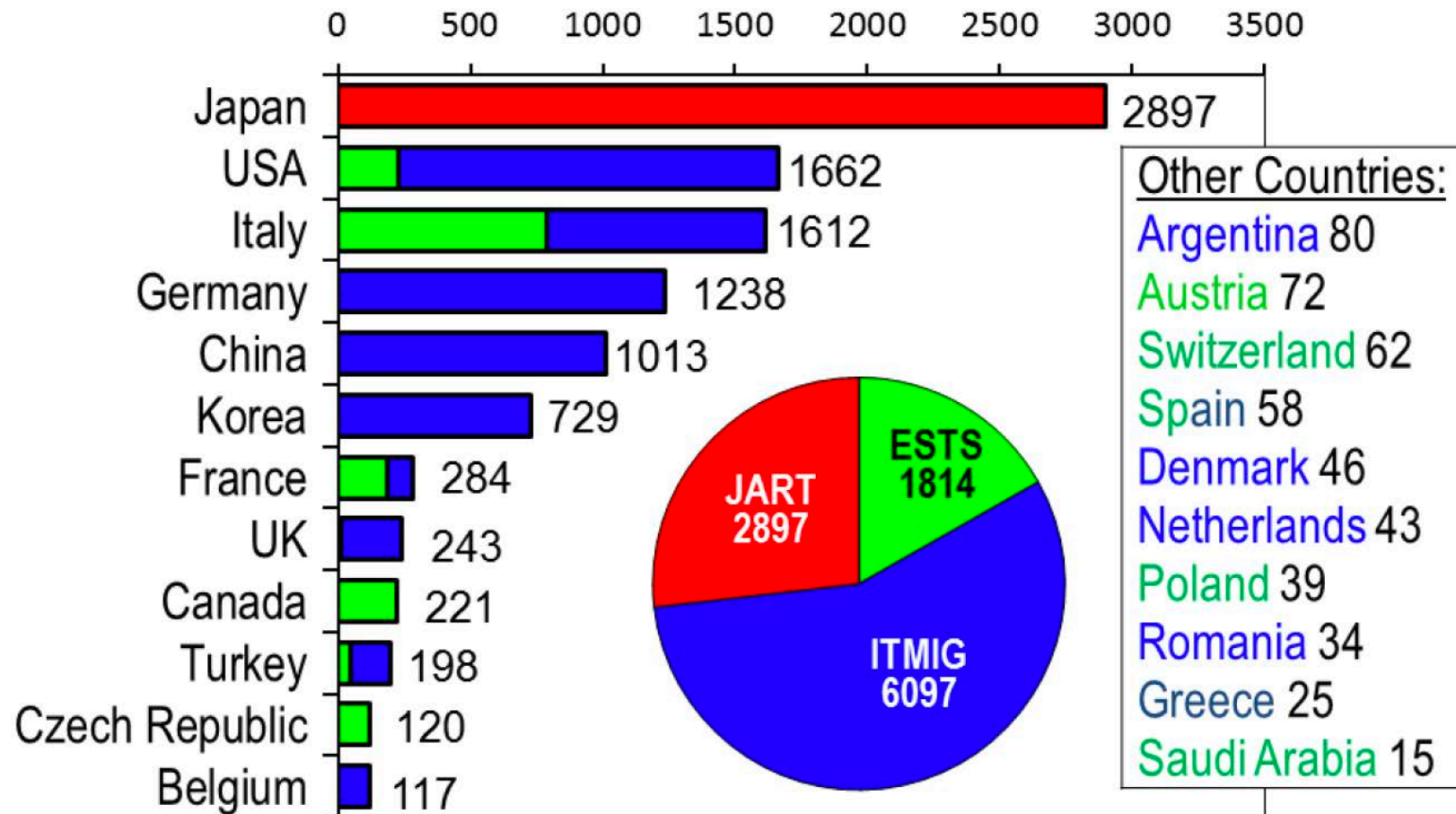
histopathologic classification

WHO 2015

type	pathological features	invasiveness %	10y DFS %
A	occurrence of bland, spindle shaped epithelial cells (at least focally); paucity or absence of immature (TdT+) T cells throughout the tumor	10 – 40	100
AB	occurrence of bland, spindle shaped epithelial cells (at least focally); abundance of immature (TdT+) T cells focally or throughout tumor	30 – 40	100
B1	thymus-like architecture and cytology: abundance of immature T cells, areas of medullary differentiation (medullary islands); paucity of polygonal or dendritic epithelia cells without clustering (i.e.<3 contiguous epithelial cells)	45 – 50	
B2	increased numbers of single or clustered polygonal or dendritic epithelial cells intermingled with abundant immature T cells	65 - 70	85
B3	sheets of polygonal slightly to moderately atypical epithelial cells; absent or rare intercellular bridges; paucity or absence of intermingled TdT+ T cells	85 - 90	35
MNT	nodules of bland spindle or oval epithelial cells surrounded by an epithelial cell-free lymphoid stroma		
metaplastic carcinoma	biphasic tumor composed of solid areas of epithelial cells in a background of bland-looking spindle cells; absence of immature T cells	90 - 95	15

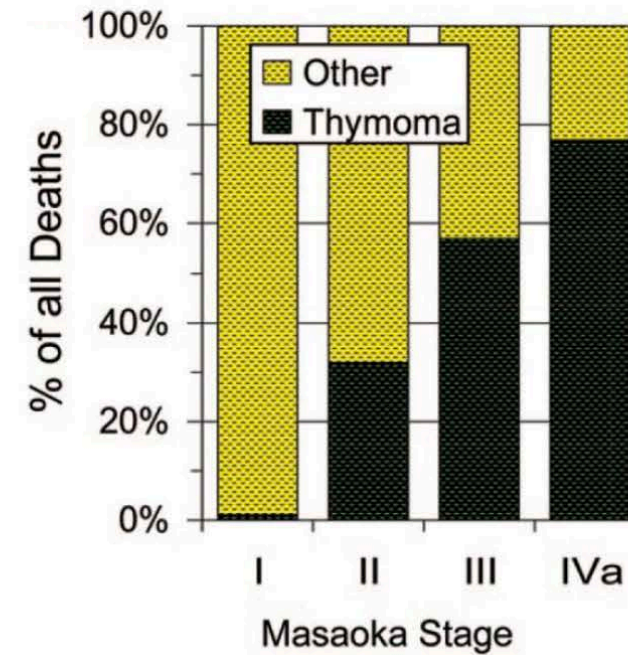
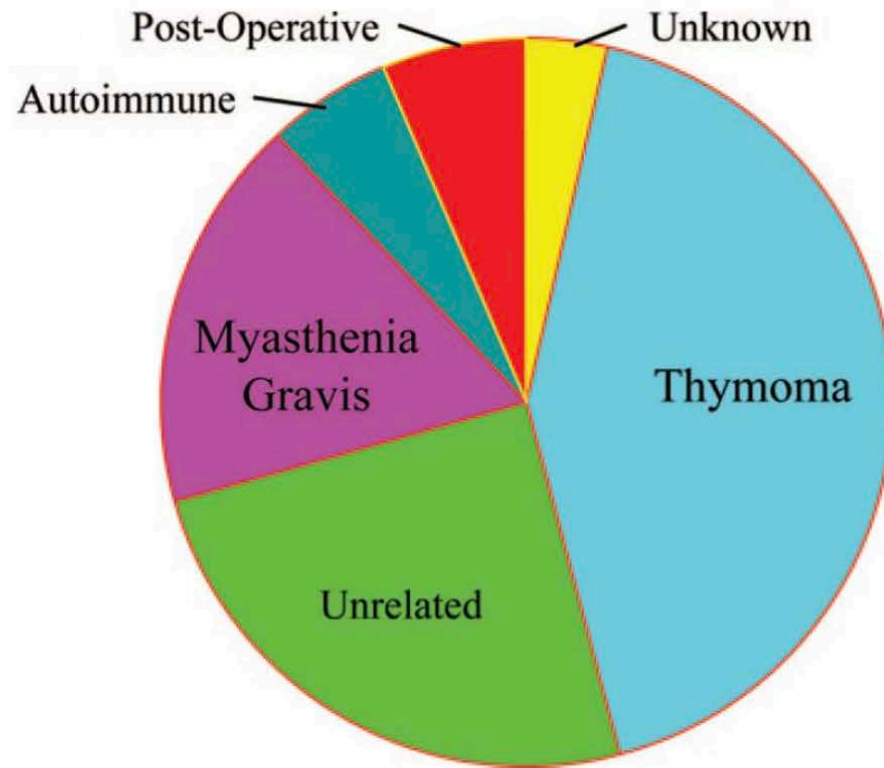
ITMIG/IASLC retrospective data 2014

number of cases by country, 10808 cases

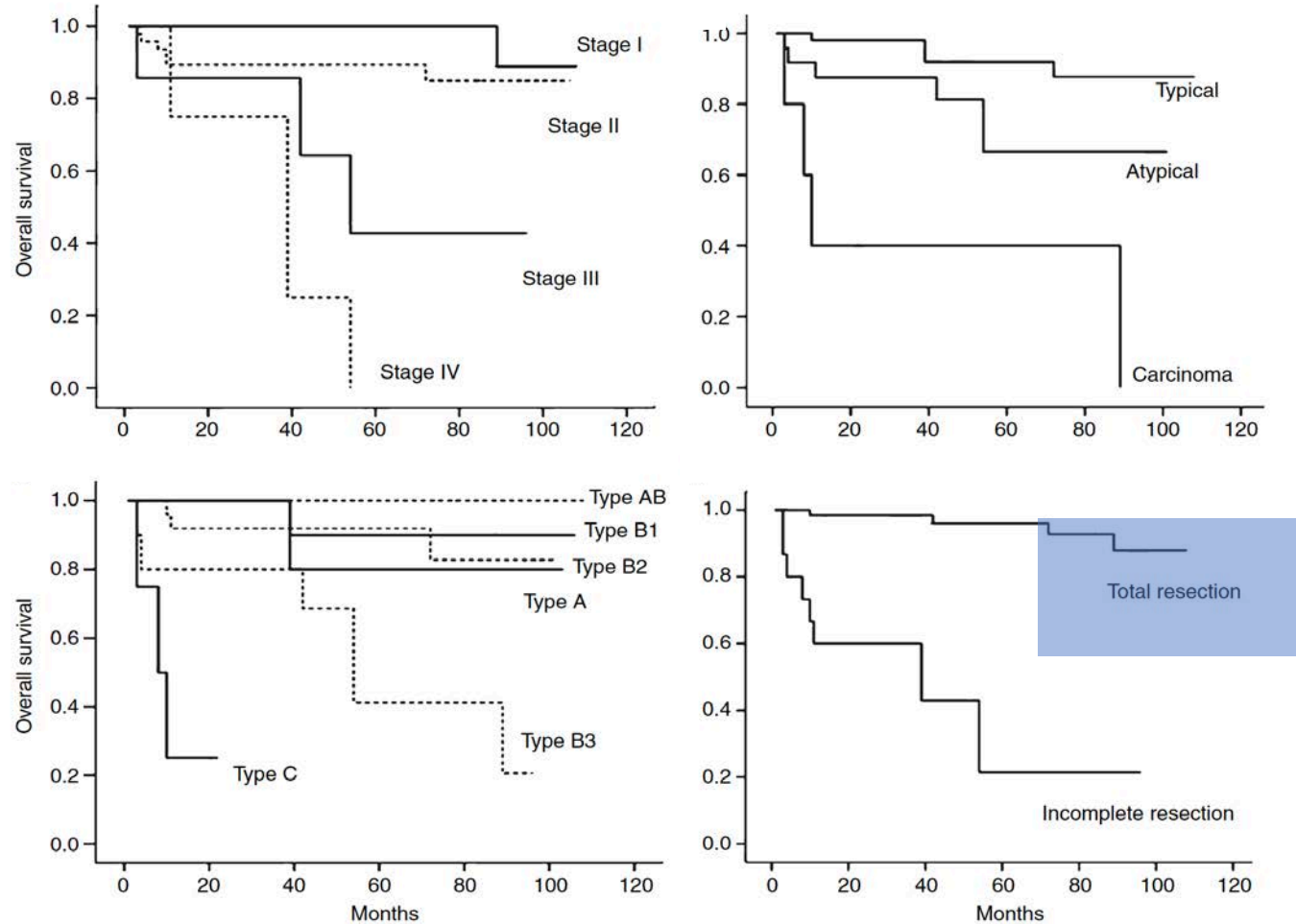


prognosis of thymoma

causes of death



most significant prognostic factor completion of surgical resection



definition of resectability

“Computed Tomography Findings Predicting Invasiveness of Thymoma”

Marom et al. *J Thorac Oncol* 2011

“Preoperative Computed Tomography Findings Predict Surgical Resectability of Thymoma”

Hayes et al. *J Thorac Oncol* 2014

definition of resectability

MRI

