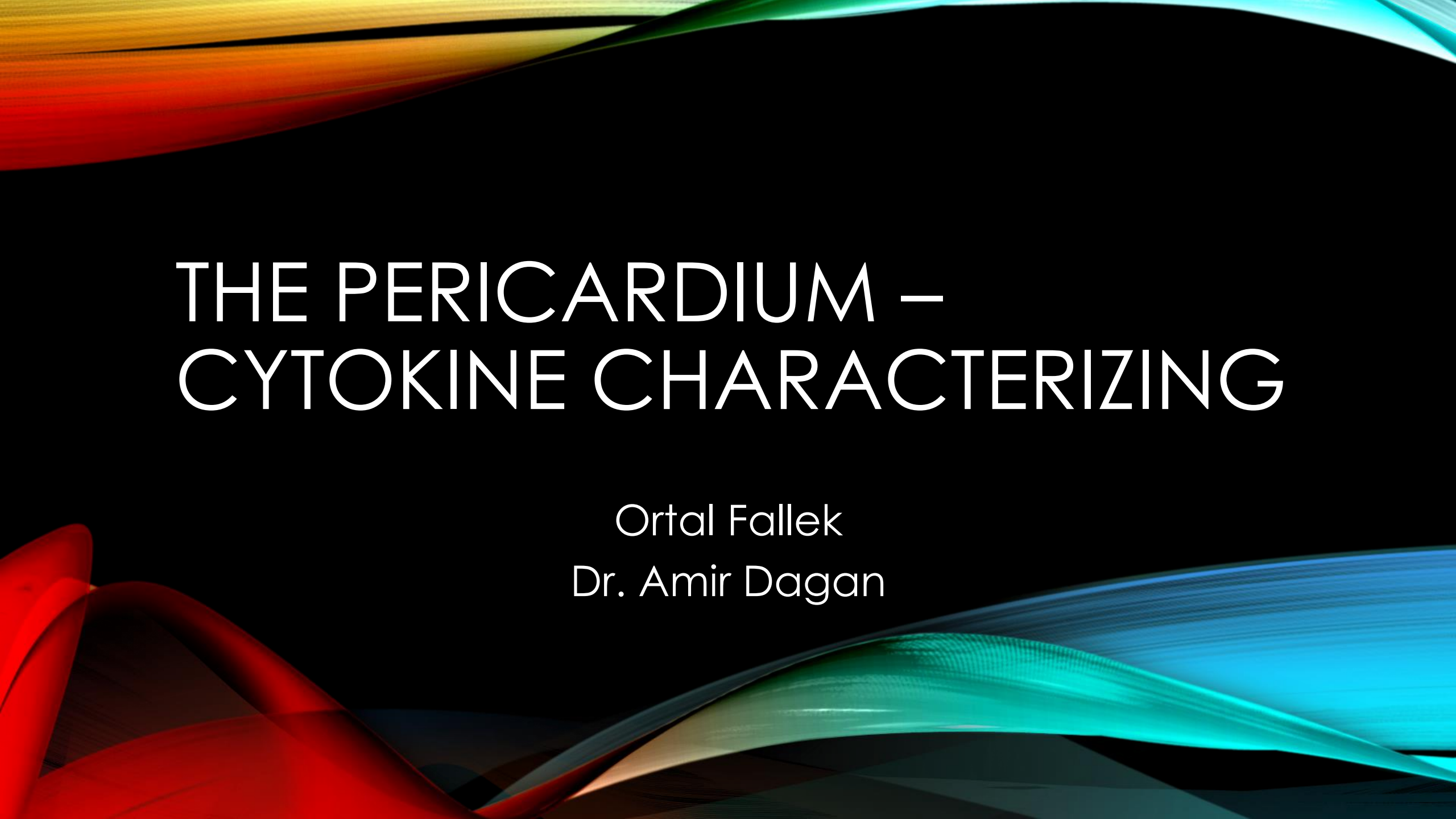


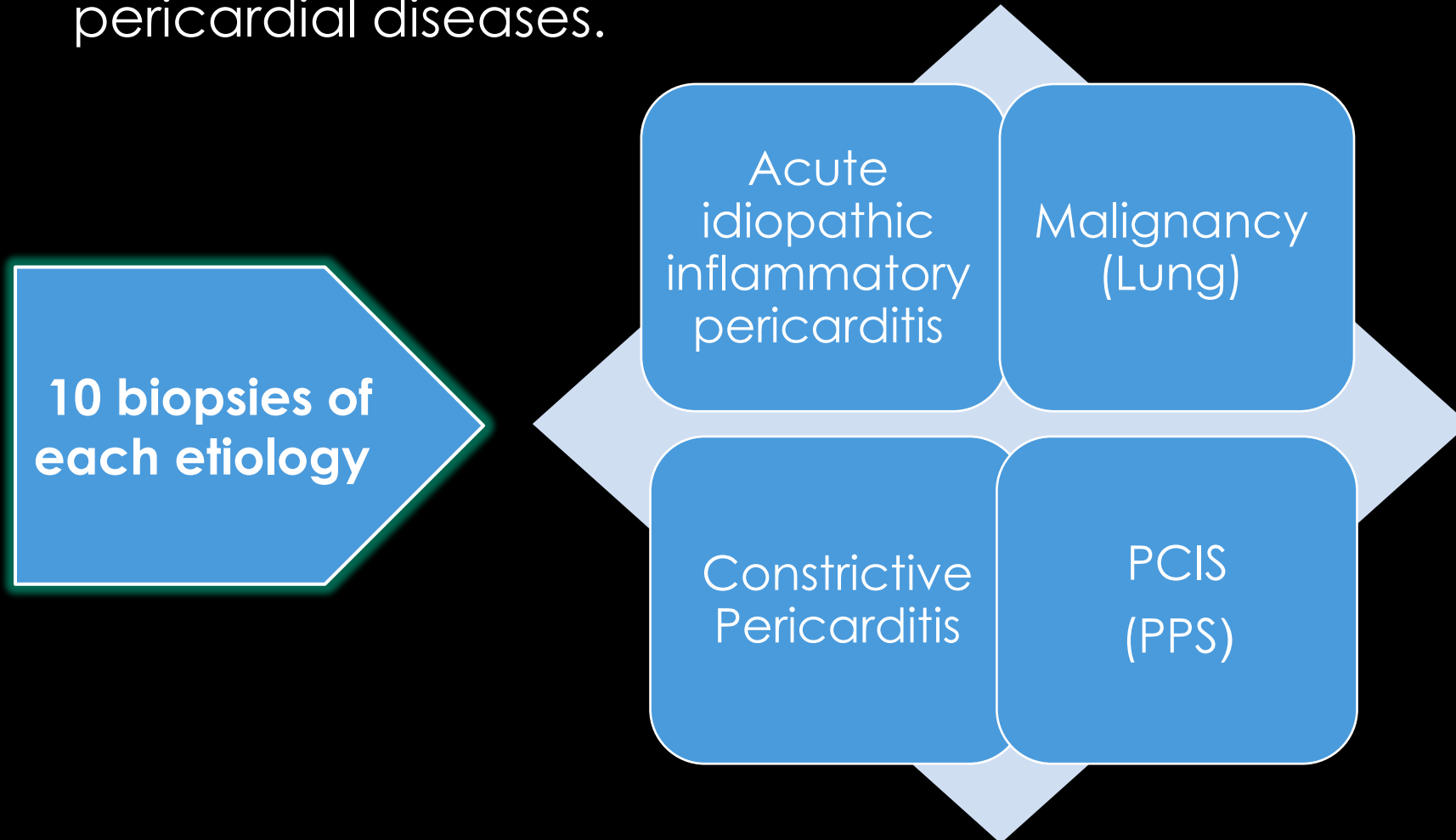


THE PERICARDIUM – CYTOKINE CHARACTERIZING

Ortal Fallek
Dr. Amir Dagan

INTRODUCTION

- Main goal: characterizing cytokines in pericardial biopsies in different pericardial diseases.



MATERIALS AND METHODS

- **1st step: Collecting and analyzing the data (retrospectively).**

101
patients

2000-2015

SMC

Therapeutic
procedure

Clinical
history

Laboratory
results

Echo

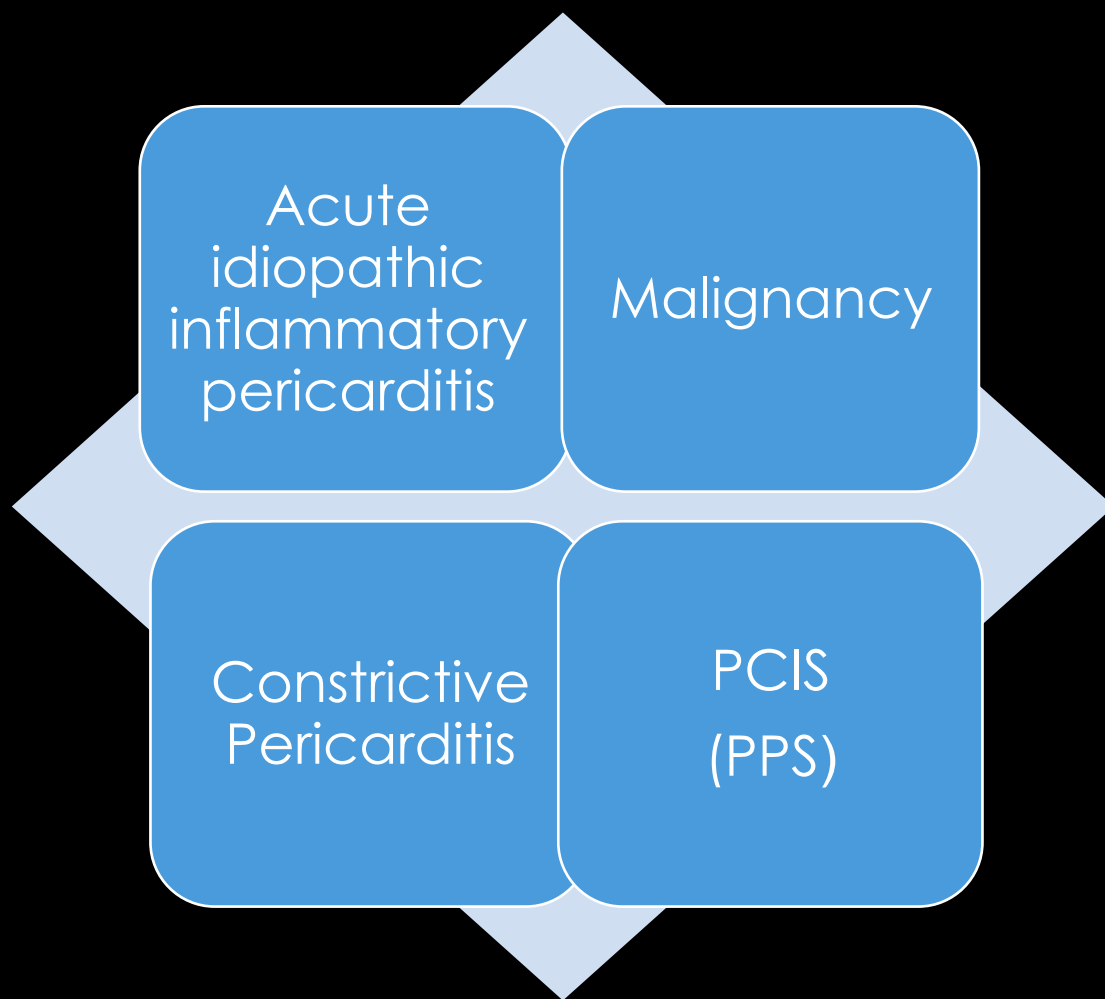
Histology

- Unique cohort of people.

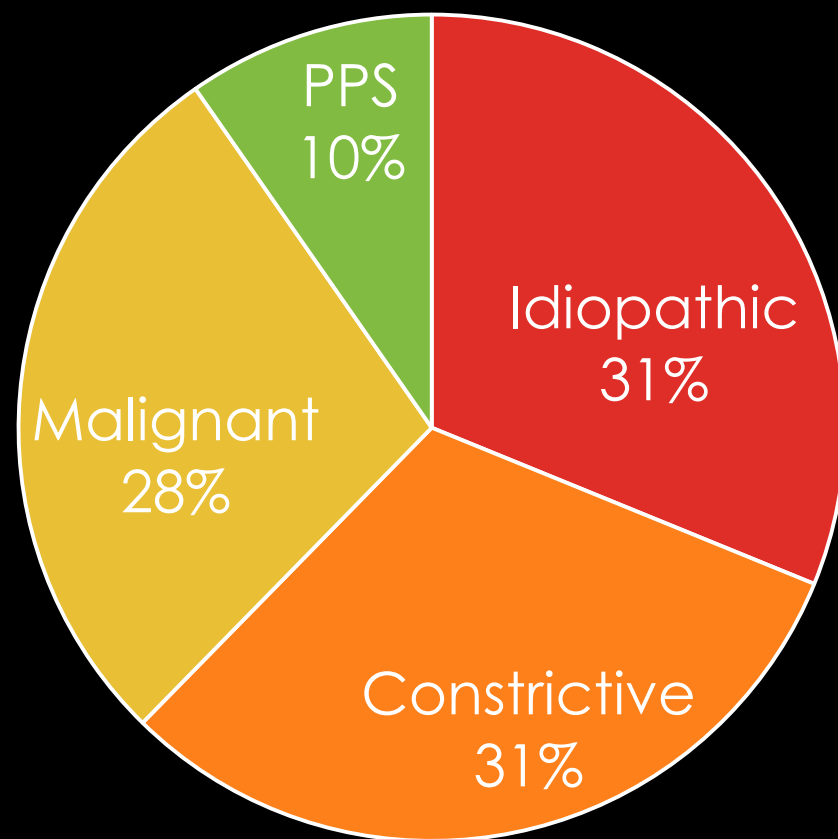
Etiology		Sum	
Idiopathic	Metabolic? Medications?	19	54
		25	
		10	
PPS		9	13
		4	
Purulent		4	4
Autoimmune	Tuberculosis?	1	1
Malignant		15	26
		11	
Amyloidosis		1	1
Cardiac Thrombus		1	1
Chylous		1	1
Total			101

MATERIALS AND METHODS

Pericardial disease main etiologies



Total of 93 patients



RESULTS & CONCLUSIONS

- **Age:**

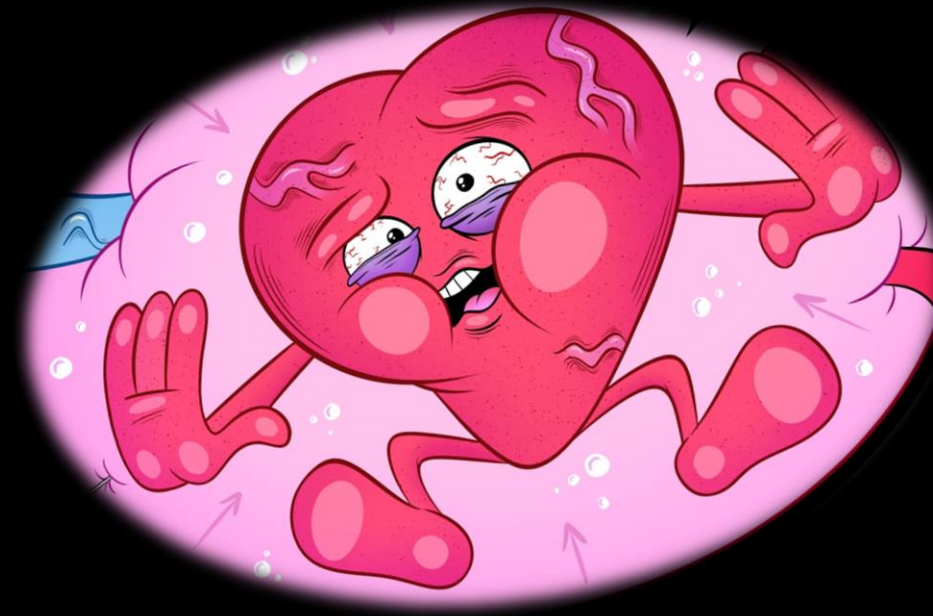
- Constrictive (73.1) > idiopathic (62.6) > PPS (61) > Malignant (57.4).
- Median age ~10 years older than other series with acute pericarditis patients.

- **Echo:**

- Pericardial effusion – In most patients, except for constrictive.

RESULTS & CONCLUSIONS

- **Cardiac tamponade:**
 - 15% of the total.
 - Mainly malignant, none of the constrictive.



RESULTS & CONCLUSIONS

- **Histological examination:**

- Fibrosis –
 - 73% of the total.
 - 93% among Constrictive.
- Calcifications – Almost exclusively in constrictive.
- Inflammatory cells –
 - 66% of the total. Idiopathic & PPS > Malignant & constrictive.

RESULTS & CONCLUSIONS

• Biopsy yield:

Literature – controversy*

Our series –
No diagnostic value!

ESC 2015 guidelines -
Selected cases of:

- Neoplastic pericarditis
- TB pericarditis
- Bacterial infections

* Seferović, Petar M. et al. 2003. "Diagnostic Value of Pericardial Biopsy: Improvement with Extensive Sampling Enabled by Pericardioscopy." *Circulation* 107(7): 978–83

* Imazio, Massimo et al. 2016. "Contemporary Reviews in Cardiovascular Medicine Pericardial Diseases." : 916–28.

* Permanyer-Miralda, G., J. Sagristà-Sauleda, and J. Soler-Soler. 1985. "Primary Acute Pericardial Disease: A Prospective Series of 231 Consecutive Patients." *The American Journal of Cardiology* 56(10): 623–30.

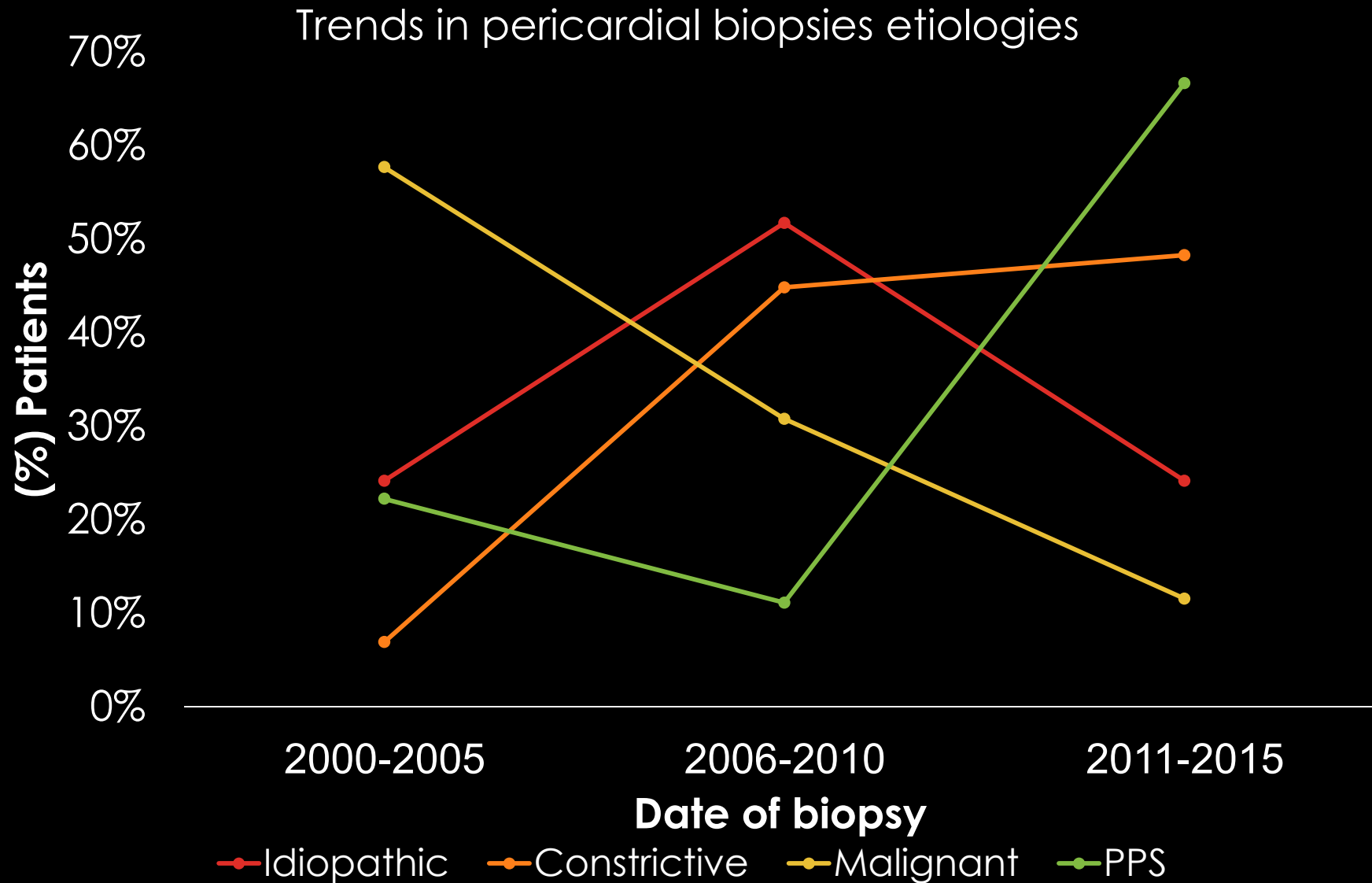
* Dragoescu, Ema A., and Lina Liu. 2013. "Pericardial Fluid Cytology: An Analysis of 128 Specimens over a 6-Year Period." *Cancer Cytopathology* 121(5): 242–51.

RESULTS & CONCLUSIONS

Malignant Etiology			
	Biopsy +	Biopsy -	Total
Lung	10	3	13
Breast		4	4
Lymphoma		2	2
Leukemia	1	1	2
Thymus		1	1
Stomach	1		1
Colon	1		1
RCC	1		1
Unknown	1		1
Total	15	11	26

58% Sensitivity

RESULTS & CONCLUSIONS



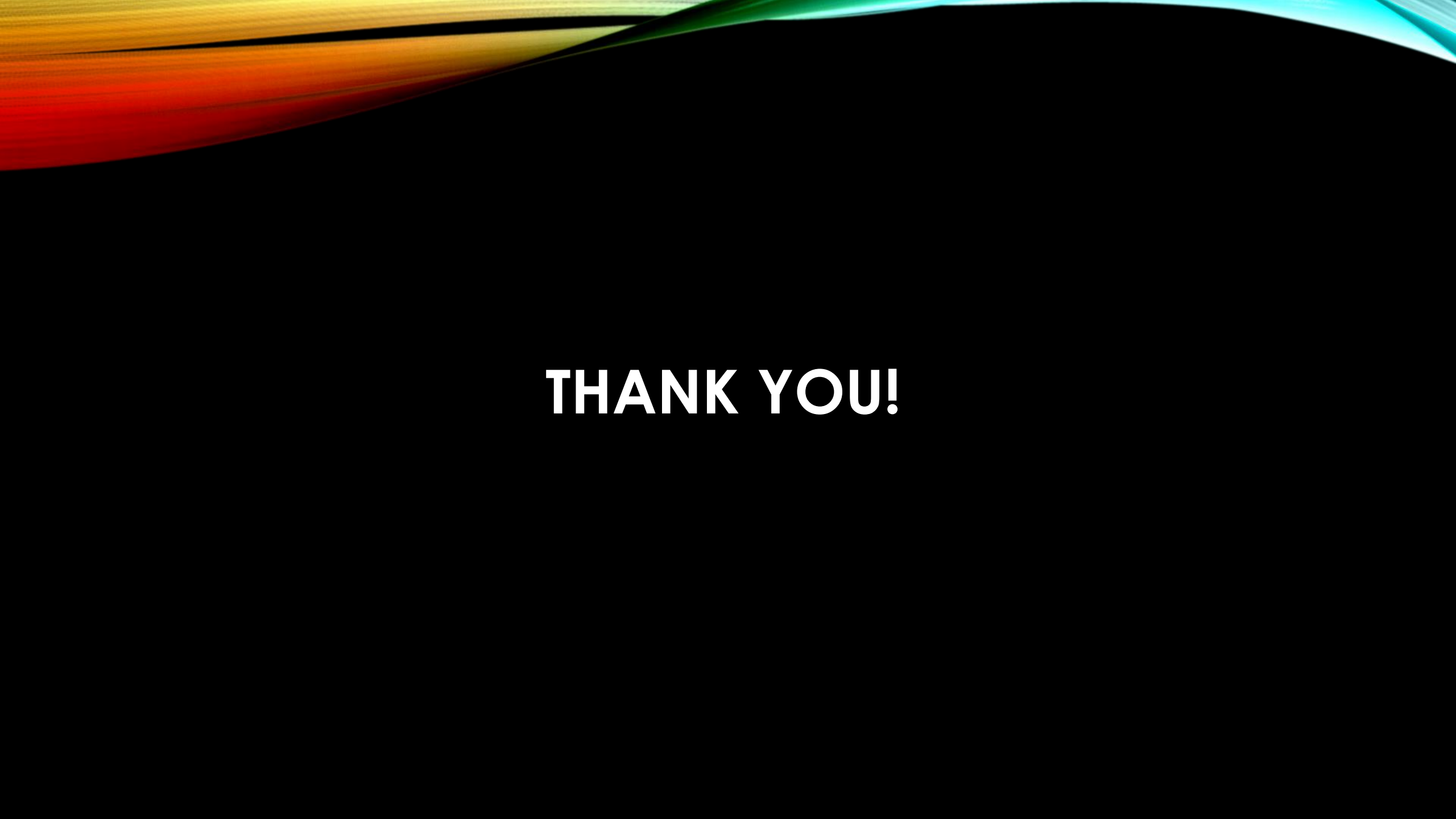
NEXT STEP

- Obtaining the pericardial specimens.



Regular
size ladder



The image features a solid black background. At the top, there is a decorative border consisting of several overlapping, wavy bands of color. From left to right, these bands transition through shades of yellow, orange, red, and finally into a bright cyan or light blue on the far right. The waves create a sense of movement and depth.

THANK YOU!