

Cardiac imaging for ATTR-CM: the key to raising suspicion and diagnosing the disease

Dear Physician,

In our latest newsletter, we unraveled the intricate web of diagnosing ATTR-CM. Now, we invite you to join us as we take a deeper dive into the dynamic realm of cardiac imaging, exploring techniques and advancements in suspecting and diagnosing ATTR-CM.

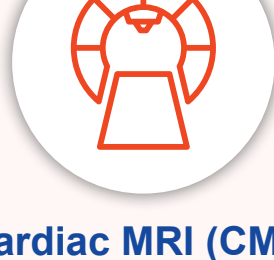
For a reminder of the ESC 2021 guidelines Diagnostic algorithm:

[Click Here](#)

Cardiac imaging methodologies that can help Raise SUSPICION of ATTR-CM



Echocardiography



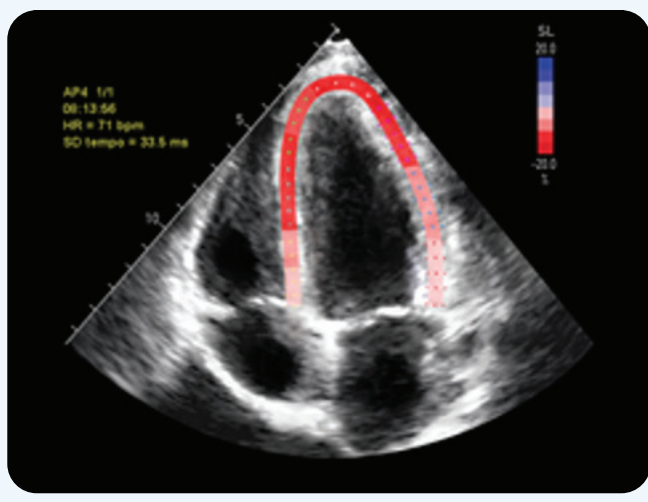
Cardiac MRI (CMR)



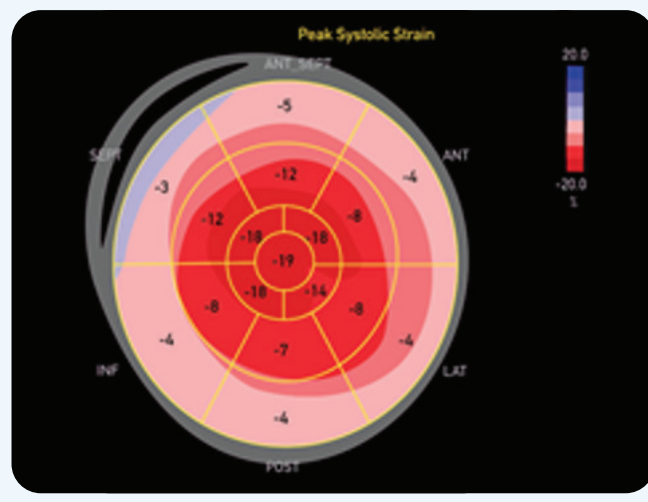
Echocardiography¹⁻³:

an essential tool in raising clinical suspicion of ATTR-CM

- Increased LV and RV wall thickness
- increased atrial septum thickness
- Batrial enlargement
- thickened valves
- Diastolic dysfunction
- Granular sparkling of myocardium
- Pericardial effusion
- Reduced longitudinal strain with apical sparing pattern ("Cherry on top")



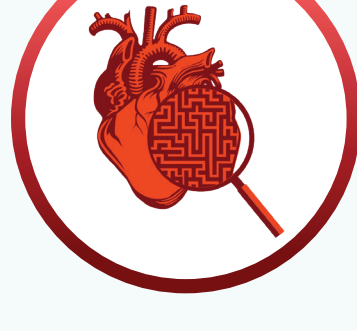
*Illustrative representation



Video - Echocardiography in Cardiac Amyloidosis

Watch Our unique Satellite Symposium at the ESC congress 2023 Amsterdam -

Live Echocardiography scanning of patient with amyloid cardiomyopathy



ECHO IN CARDIAC AMYLOIDOSIS

ESC 2023 MASTERCLASS

Dr. Martha Grogan, Mayo Clinic Rochester

Dr. Thomas Binder, Medizinische Universitaet Wien

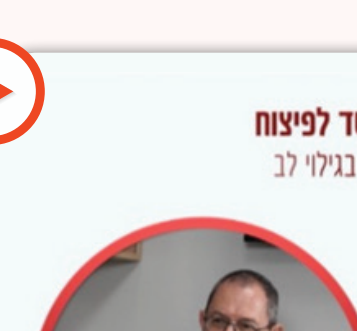


Cardiac MRI (CMR)¹⁻³:

- Subendocardial Late Gadolinium Enhancement
- Elevated native T1 values
- Increased extracellular volume
- Abnormal gadolinium kinetics: myocardial nulling preceding or coinciding with the blood pool

Video - CMR in Cardiac Amyloidosis

Watch the highlights of the interview with Dr. Arik Wolack, Head of Cardiac Imaging Unit at Shaare Zedek Medical Center



עמילואידוזיס: מחדש לפיצוח

שיח מקצועי, תובנות בגילוי לב

חשיבותו של CMR באבחון של עמילואידוזיס טרנסתירטין לבבי

ד"ר אריק וולק
מנהל היחידה לרימות לב
מרכז הלב המשולב
המערך הקרדיולוגי
המרכז הרפואי שערי צדק

מראיי: יואב שצור

יועץ רפואי, מחלקת מחלות נדירות, פיזור ישראלי



Echocardiography and CMR both cannot distinguish AL amyloidosis from ATTR-CM, requiring evaluation to exclude AL amyloidosis and further imaging studies to definitively diagnose ATTR-CM

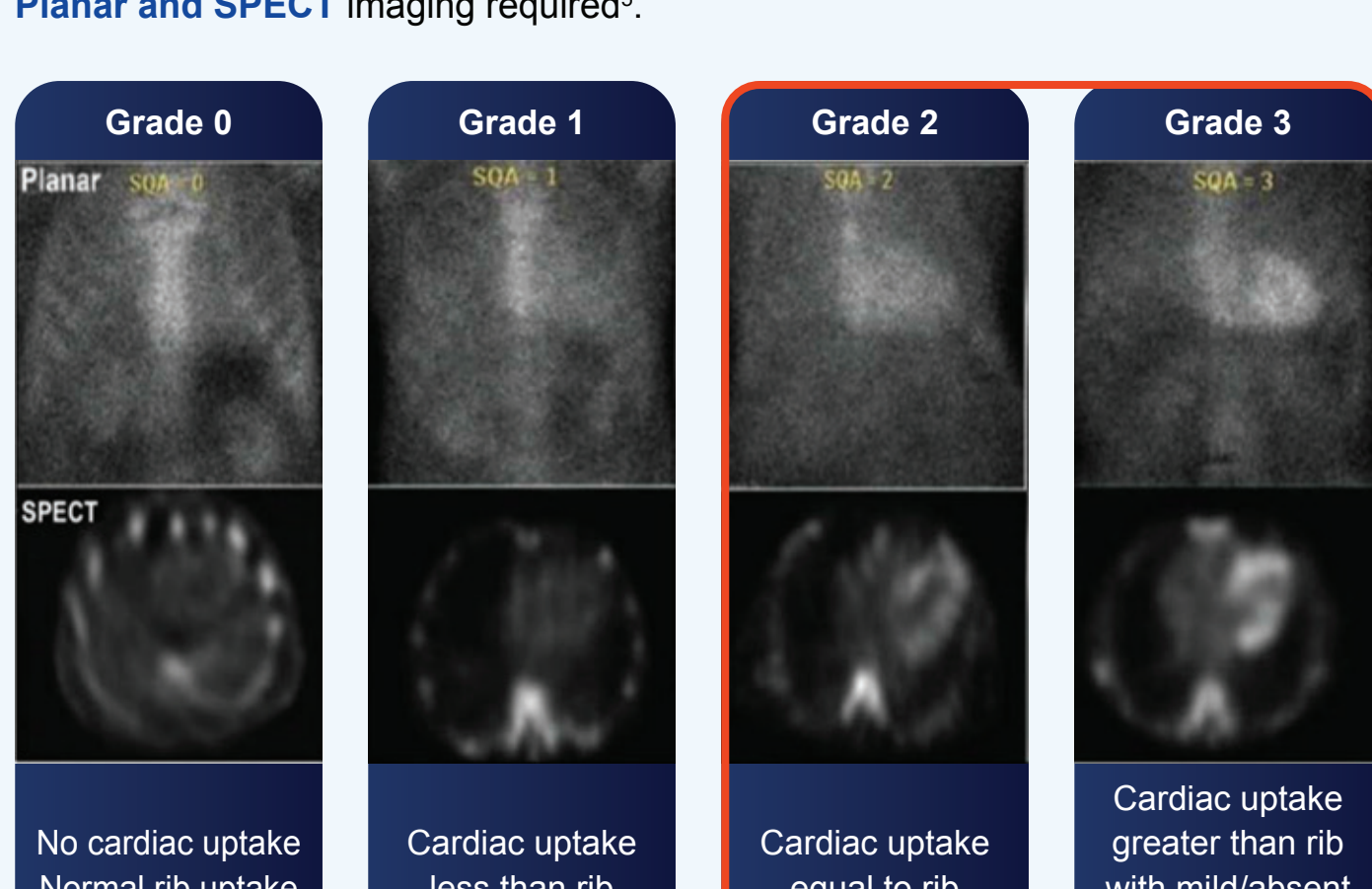
^{99m}Tc-DPD/PYP/HMDP scintigraphy: a non-invasive approach to Confirm a Diagnosis



Cardiac ATTR amyloidosis can be diagnosed in the absence of histology in the setting of typical echocardiographic/CMR findings when ^{99m}Tc-PYP, ^{99m}Tc-DPD or ^{99m}Tc-HMDP scintigraphy shows **Grade 2 or 3 myocardial uptake** of radiotracer, giving a clonal dyscrasia is excluded by all the following tests: serum free light chain (FLC) assay, serum (SPIE), and urine (UPIE) protein electrophoresis with immunofixation¹.

Planar and SPECT imaging required⁵.

Note that **False Negative** can occur in some TTR mutations (ATTRm), and specifically in Ser77Tyr which is the most prevalent mutation in Israel (among families of Jewish Yemenite descent)^{1,4}.



*Illustrative representation



For additional educational material regarding ATTR-CM please visit our knowledge center

Thank you for taking time to review this information. Please reach out if you have any questions or would like to discuss further.

Ronnie Segev, DVM, Medical Affairs Scientist
Ronnie.Segev@pfizer.com
+972-54-5844854

Yoav Shetzer, PhD, Medical Affairs Scientist
yoav.shetzer@pfizer.com
+972-50-7628727

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