



Management of Congenital Coronary Artery Malformations

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BACKGROUND

Anomalous coronary origins (AAOCA) can be associated with sudden cardiac death, but their management remains controversial.

These anomalies are commonly identified incidentally on echocardiograms performed for other reasons.

Guidelines for best practices were published in the Journal of Thoracic and Cardiovascular Surgery in 2017 (2017 JTCS) but may not be widely used.

METHODS and SURVEY POPULATION

We sent an anonymous survey to the members of the American Academy of Pediatrics Section on Cardiology and Cardiac Surgery and the Pediheart online community regarding their interpretation of echocardiograms and management of AAOCA. This survey was limited to anomalous origins of the right (AAORCA) and left (AAOLCA) coronary arteries from the opposite cusps.

We received 111 complete responses. There were 94 Cardiologists, 12 Trainees and 3 APPs. Of those who completed training the average years in practice was 16.2 years with a range of 1-52 years. 98 of the respondents read echoes.

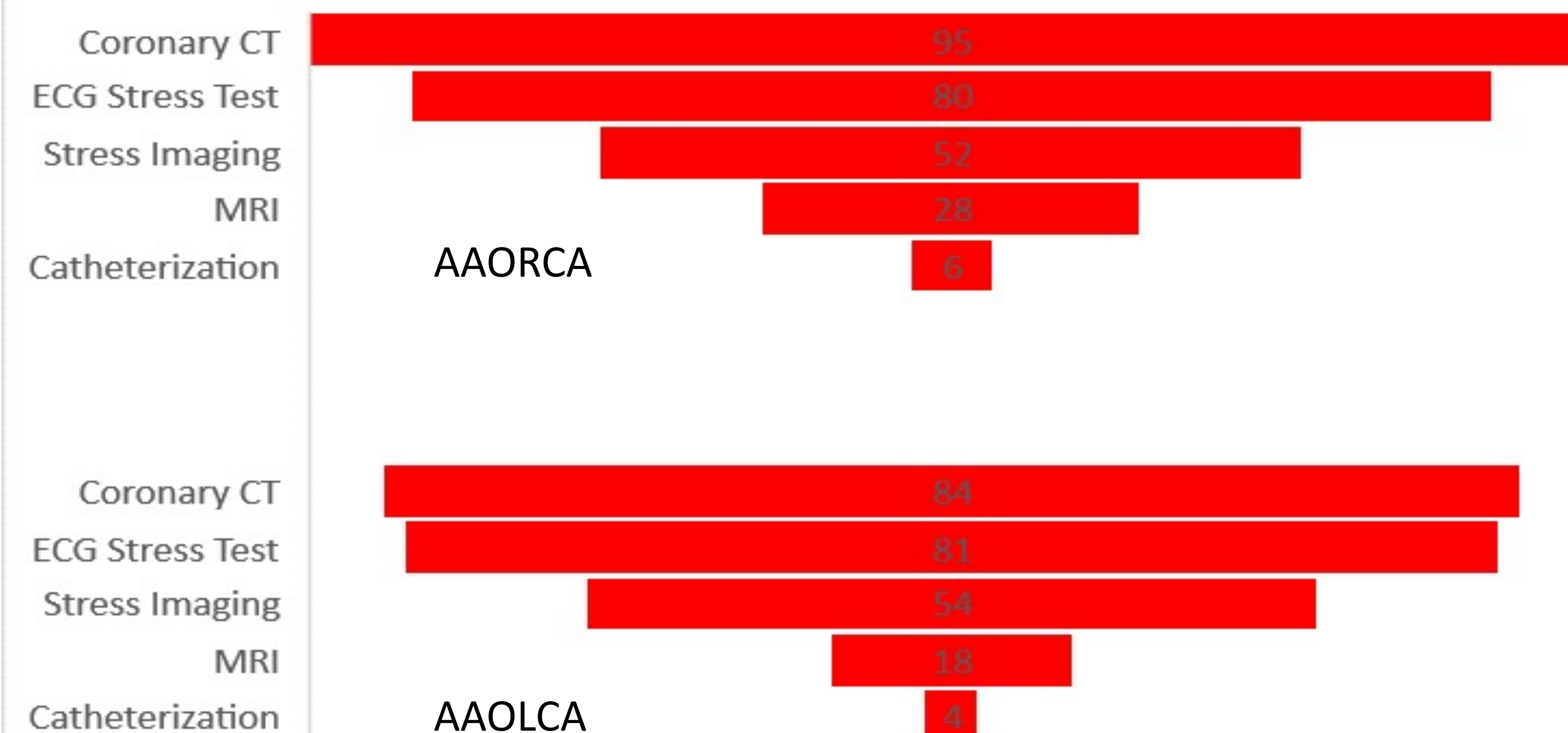
Respondents felt the coronary arteries were adequately visualized in echocardiograms at the following ages:

< 1 year	85.4%
1-4 years	80.5%
5-9 years	82.4%
10-20 years	75.7%

Pediatric Cardiologists' recommendations do not always follow the 2017 AATS management guidelines. The uncertainties and inconsistencies identified by this survey may help to assist the development of future clinical practice guidelines.

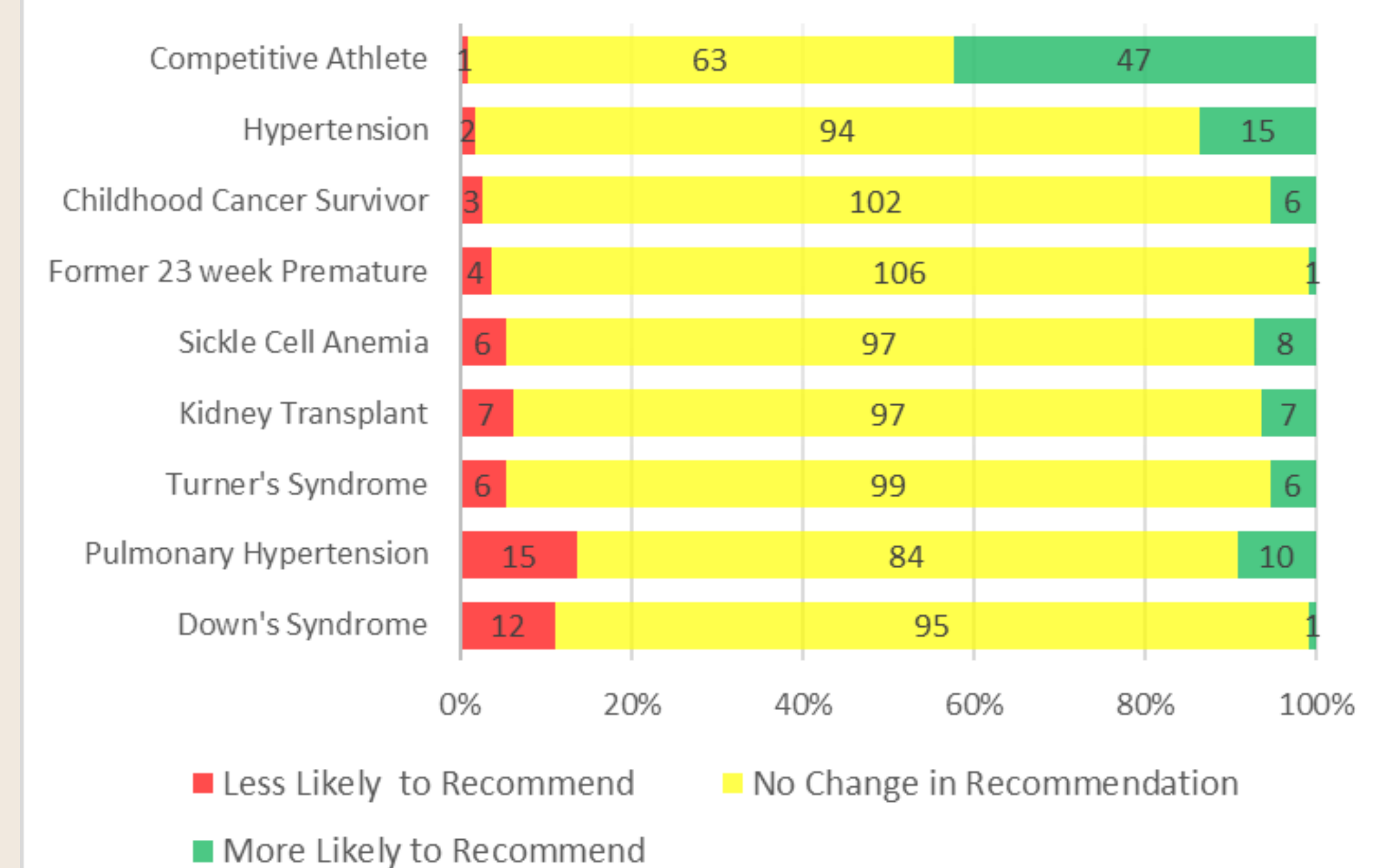
RESULTS

Diagnostics After Incidental Diagnosis of AAOCA



RESULTS

CHANGE IN RECOMMENDATIONS FOR SURGERY IN ECHO SCREENING GROUPS



SUMMARY

Although respondents often reported management similar to that recommended in the 2017 JTCS guidelines, there were significant variations.

Respondents did not always recommend surgery in AAOLCA when there were no signs or symptoms of ischemia found.

Respondents used conventional ECG stress testing more often than imaging stress testing despite the known limitations of ECG stress testing in the risk stratification in AAOCA.

Stress testing was often recommended in AAOLCA despite the 2017 JTCS recommendations for surgery regardless of their results.

Coronary CT scans were frequently recommended to confirm the anatomy seen on echocardiography.

Although AAOCA is often identified on screening echocardiography, the 2017 JTCS guidelines to not address the incidental finding of AAOCA in those populations who undergo screening.