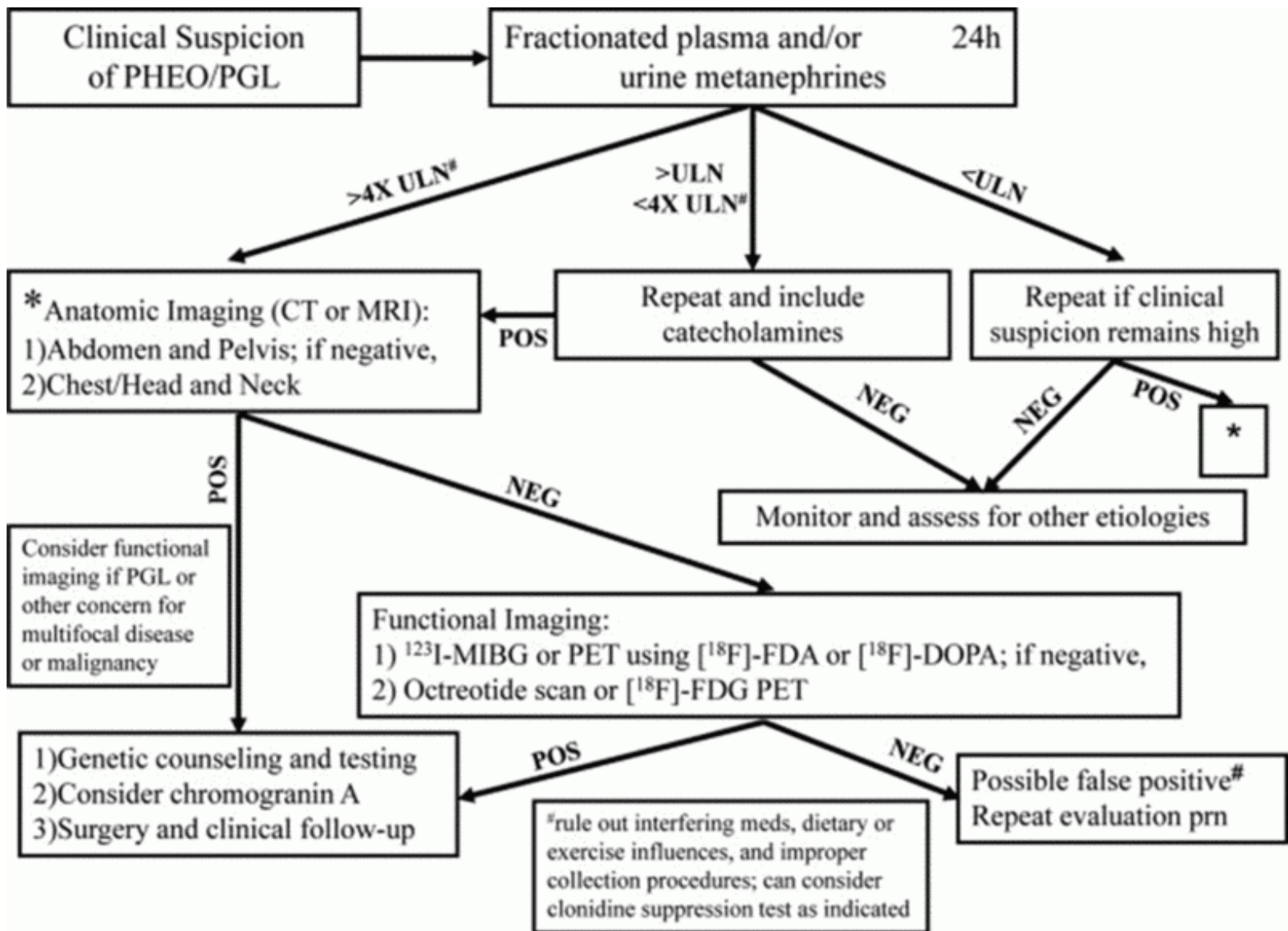


Helmer-Sobey J, Nguyen T, Lam H, Austin T  
 Vanderbilt University, Nashville, TN, USA

Pheochromocytoma is a rare tumor in the pediatric population. The tumor may secrete a combination of norepinephrine/epinephrine, only norepinephrine, or only epinephrine. In 10% of patients with pheochromocytoma, the tumor is part of a familial disorder such as MEN syndrome, von Recklinghausen, or von Hippel-Lindau syndrome. Patients may present with episodic headaches, sweating, and palpitations. Prolonged exposure of catecholamines may result in dilated cardiomyopathy. Recovery of heart function has been reported in many adult cases after resection of pheochromocytoma but there are a paucity of reports in children. We present a case report on the anesthetic management of a child with a history of pheochromocytoma and severe cardiomyopathy with an EF of 18% s/p excision of the original pheochromocytoma who presented to our institution two years later with new onset symptoms of headache, dizziness, and diaphoresis and was found to have recurrence of left sided pheochromocytoma. Echo revealed near normal cardiac function with an EF of 45%. We will discuss the intraoperative management of pheochromocytoma and the incidence of cardiomyopathy and recovery of cardiac function in the pediatric population.



Clinical Suspicion  
of PHEO/PGL

Fractionated plasma and/or  
urine metanephrines

24h

## Catecholamine Biosynthesis and Metabolism

**TYROSINE**



*tyrosine hydroxylase (rate limiting)*

**DOPAMINE**



**NOREPINEPHRINE**



*phenylethanolamine N-methyl transferase (PMT)*

**EPINEPHRINE**



*monoamino oxidase (MAO)*

**METANEPHRINES AND VANILMANDELIC ACID (VMA)**  
(= *inactive metabolites*)

initial  
values high

↓

\*

logies



positive#  
on pm

clonidine suppression test as indicated

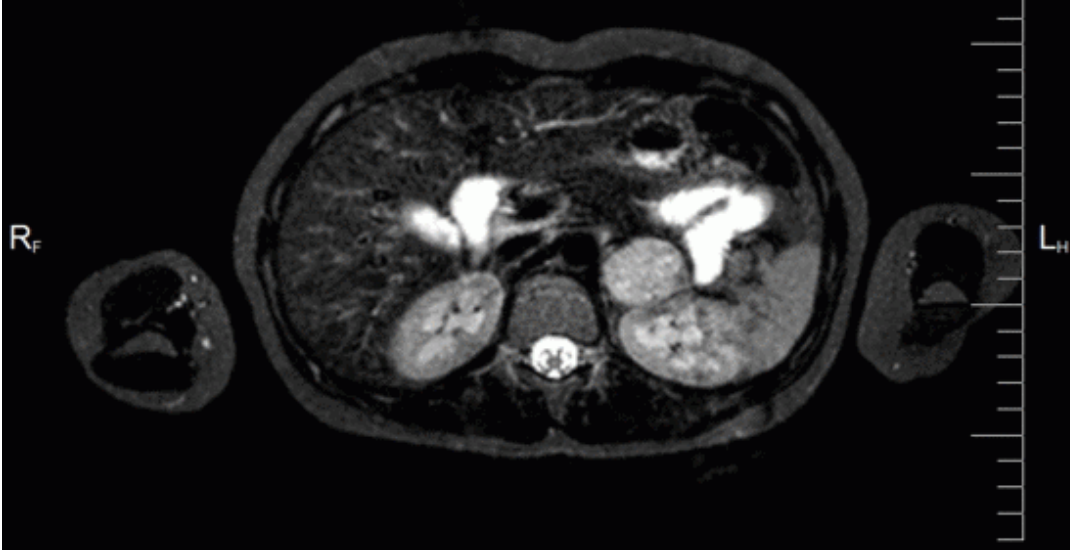
1.5T STATION64166  
Ex: ID64166  
AX STIR CHEST/ABD  
Se: 1101/8  
Im: 44/60  
Ax: F54.8 (COI)

A<sub>H</sub>

Anonymous Hospital  
PATIENT2211  
1901 Jan 01 M ID2211  
Acc: ACC64166  
2013 Aug 22  
Acq Tm: 12:45:59.81

Mag: 2.1x

340 x 332



ET: 16  
TR: 8787.9  
TE: 73.0  
SENSE-XL-Torso

5.0thk/1.0sp  
Id:DCM / Lin:DCM / Id:ID

W:130 L:84

P<sub>F</sub>

DFOV: 41.0 x 41.0cm