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For cardiac masses are primary tumors or metastases more common?

Cardiac metastases are way more common (like 30x more) than primary cardiac tumors.

What are the top metastases to the heart?

#1 Lung. #2 Lymphoma.

What is the top benign primary cardiac tumor in an adult?

#1 is myxoma. Myxomas are more common in women and complications of a cardiac myxoma include stroke or pulmonary embolism and myxomas may also cause obstructive symptoms in the heart. As an aside a cardiac lipoma is the 2nd most common benign cardiac tumor in an adult. With a cardiac lipoma this will almost always be incidental but sometimes these can cause dysrhythmias.

What is the most common location in the heart for a cardiac myxoma?

Cardiac myxomas located in the left atrium 75% of the time, attached to the fossa ovalis. For cardiac lipomas these are common in both right atrium or left atrium whereas myxomas are more common in the left atrium.

What is the Carney Complex?

Carney complex is an autosomal dominant disease with myxomas (cardiac by far most common but also elsewhere like breast and testes), blue nevi of the face and trunk, schwannomas and pituitary adenomas. 2/3 of patients with Carney Complex get cardiac myxomas which may be bilateral.

What is the difference between the Carney Complex and the Carney Triad?

Carney Complex is Cardiac related (myxomas). Carney triad is a triad of extra-adrenal paraganglioma, gastrointestinal stromal tumor, and pulmonary chondroma.

What is the top malignant primary cardiac tumor in an adult?

#1 is a cardiac angiosarcoma. Most common in 20-50-year-olds.

What is the most common location for a cardiac angiosarcoma?

The right atrial wall. If you see a right atrial mass that arises from the wall this is concern for an angiosarcoma unlike a lipoma or myxoma that will be more within the right atrial lumen. Another bad sign is a right atrial mass with a malignant pericardial effusion. If you see that angiosarcoma should be high on your differential.

What is the top benign cardiac tumor in young children?

#1 is a rhabdomyoma. These are usually detected less than 1 year of age. The malignant rhabdomyosarcoma becomes more common in older childhood and young adults.

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Cardiac rhabdomyomas are strongly associated with what multisystemic disease?

Tuberous sclerosis. About 50% of cardiac rhabdomyomas are seen in the setting of tuberous sclerosis. On board exams, if they show you a head CT or Brain MRI along with a cardiac scan tuberous sclerosis should be high on your differential from the start. Note also that cardiac fibromas also have a tuberous sclerosis association.

Is cardiac lymphoma most commonly primary or secondary?

Cardiac lymphoma is most commonly secondary, most commonly from non-Hodgkin lymphoma in the clinical setting of HIV infection. Often presents with a large malignant pericardial effusion.

How does lipomatous hypertrophy of the interatrial septum present on an FDG-PET/CT scan?

With lipomatous hypertrophy of the interatrial septum you see increased FDG uptake in the interatrial septum corresponding with interatrial fat on CT. This is not a lipoma as a lipoma is encapsulated mass and this is simply fat in the interatrial septum. This is benign but can be associated with arrhythmias.

What is the most common primary cardiac tumor of the cardiac valves?

Papillary fibroelastomas are the most common primary tumor of the cardiac valves. Most to least common is aortic valve > mitral valve > tricuspid valve > pulmonary valve.

If you see a cardiac mass and you are presented with clinical symptoms of flushing and headache what should you consider?

A cardiac paraganglioma. These are endocrine active lesions and may be associated with elevated chromogranin A and metanephrine levels.

Lastly: A few rare cardiac tumors to be aware of include pericardial teratomas which have 3 germ cell layers like elsewhere and are most common in infants and may have a large associated pericardial effusion and cardiac osteosarcomas which are nearly always in the left atrium and may directly invade pulmonary veins. If you see an osteoid matrix lesion of the left atrium think primary cardiac osteosarcoma. Risk for metastatic disease exists.