



Medical Expertise

"Development of the European Network in Orphan Cardiovascular Diseases"
„Rozszerzenie Europejskiej Sieci Współpracy ds Sierocych Chorób Kardiologicznych”

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CASE SUMMARY

The authors presented a case of 25-year old male with hyperkinetic circulation. In abdominal angio-CT scans multiple venous dilatations and arterio – venous fistulas were suspected. In other diagnostic test no significant pathologies were found.

DISCUSSION

Hyperkinetic heart failure can occur as a result of systemic illnesses (i.e. hyperthyroidism, Beriberi, Paget's disease) or of arterio-venous fistulae (AVF) either congenital or iatrogenic (dialysis fistulas or following nephrectomy, arterial puncture, disc surgery), as well as blunt or penetrating trauma. Chronic AVF can cause hyperkinetic CHF - the pressure in the venous system increases with a secondary increase of the pre-load. Sustained volume overload caused by an AVF produces cardiac hypertrophy, biventricular dilation and ultimately, ventricular decompensation (1).

Symptoms and findings that may suggest the diagnosis of an AVF are in the majority the same as heart failure and include exertional dyspnoea, leg oedema, intermittent claudication, varicose veins, ascites, hepatomegaly, abdominal bruit, palpable pulsatile mass, murmur and thrill over the scars and a positive Branham's sign. Echocardiogram, CT scan and angiography are the most important investigations to achieve a correct diagnosis. (2)

Magnetic resonance angiography and digital subtraction angiography are excellent alternatives to CT angiography in patients with a history of contrast reaction or renal failure. Endovascular intervention is at the present the preferential treatment of AVF, and provides a simple and effective alternative to major surgical procedures. Endovascular treatment with covered-stents is also effective, while lacerations of internal iliac arteries can be managed by endovascular embolisation. Endovascular management may also be preferable in case of a patient's refusal of



transfusion for religious reasons. (3)

There are few predictors of response to a b-blocker, but b-blockers are useful in hyperkinetic forms of hypertension as in individuals with a high cardiac awareness profile or somatic manifestations of anxiety, such as tremor, sweating, and tachycardia. (4)

EXPERT'S OPINION

Endovascular intervention is at the present the preferential treatment of AVF, and provides a simple and effective alternative to major surgical procedures. In alternative pharmacotherapy with b-blockers may be considered.

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