CARDIOVASCULAR FLASHLIGHT

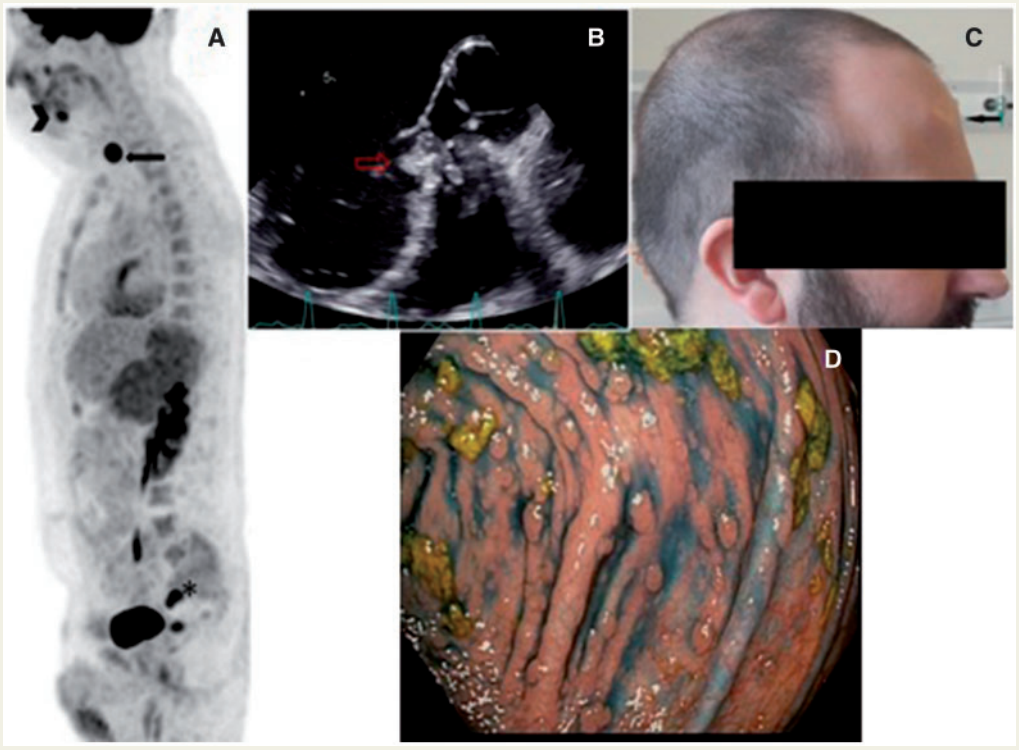
doi:10.1093/eurheartj/ehy858
Online publish-ahead-of-print 18 December 2018

Whole-body [18F]-fludeoxyglucose positron emission tomography in endocarditis: the story of a rare diagnosis

Alexandre Natalis*, Patrick Marechal, and Patrizio Lancellotti

CHU de Liége, Service de Cardiologie, Rue de l'hôpital n°1, 4000 Liege, Belgium

* Corresponding author. Tel.: 003242823353, Fax: 003243668891, Email: alexandre.natalis@gmail.com



A 41-year-old man was admitted in the cardiology department for infective endocarditis at the site of a known congenital interventricular communication (*Panel B*). Physical examination reveals a pansystolic murmur graded 4/6, skull osteoma (*Panel C*), and back lipoma.

A total body positron emission tomography (PET) scanner (*Panel A*) showed foci of uptake in the right inferior mandibula (*arrowhead*, an asymptomatic infected supplemental root), the thyroid (*arrow*, a papillary carcinoma), and the rectum (*star*). A colonoscopy reveals a non-uniform adenomatous polyposis with low-grade tubular adenomatous dysplasia (*Panel D*).

A clinical diagnosis of Gardner syndrome (GS) was made. This syndrome refers to the constellation of inherited colonic adenomatosis polyposis together with a number of extra colonic lesions and both arose form adenomatous polyposis coli (APC) gene mutations. Extra colonic lesions can be benign such as osteoma, dental abnormalities, cutaneous lesions, desmoids tumours, or malign, mostly of duodenal, thyroid, pancreatic, gastric, or adrenal origin.

The prevalence of the GS varies from 1 in 6580 to 1 in 31 250 people.

The inheritance is autosomal dominant with almost complete penetrance.

Of note, 20–30% of new cases come from new mutation (the family tree of our patient reveal no other apparently sick sibling).

The patient evolves well under antibiotic and underwent genetic counselling.

An APC gene mutation [c.4348C>T (p.Arg1450*)] was found.

This case highlights the interesting value of the use of PET scanner as a part of endocarditis workup for aetiology and emboli screening. A video of the transesophageal echocardiography is available in Supplementary material.

Supplementary material is available at *European Heart Journal* online.