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Positron emission tomography–computed tomography scan helps decision making in cardiac surgery

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A 64-year old male who underwent a mechanical valve Bentall procedure at another institution presented 1 year postoperatively with fever and dyspnoea. Laboratory investigations revealed *Candida albicans* infection with a periprosthetic collection. Confusion as to whether the collection was infective endocarditis, a periprosthetic transudate or a mass of haemostatic plugs used intraoperatively was clarified by combined positron emission tomography–computed tomography (PET–CT scans; Fig. 1).

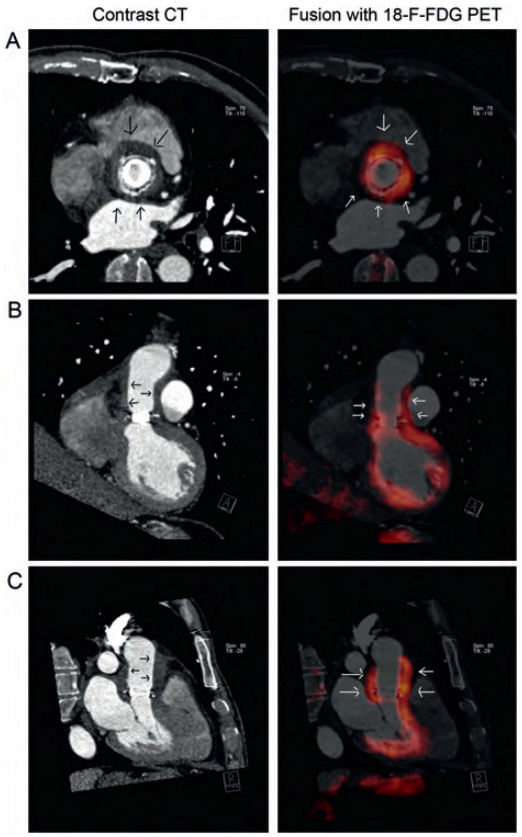

Figure 1: Contrast CT scans (left panels) of the aortic root in axial (**A**), two-chamber (**B**) and three-chamber (**C**) views showing a collection surrounding the aortic walls (black arrows). Associated hypermetabolic uptake (white arrows) in 18-F-flouro-deoxyglucose (FDG) scans (right panels) was highly suggestive of an infectious process. The patient made an uneventful postoperative recovery following a replacement of the prosthesis with an aortic homograft. This case presentation reinforces the role of the PET–CT scan as an important diagnostic tool in cases of difficult decision making in cardiac surgery.

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