

Name of Journal: *World Journal of Cardiology*

ESPS Manuscript NO: 26733

Manuscript Type: Minireviews

Role of radionuclide imaging for diagnosis of device and prosthetic valve infections

Jean-François Sarrazin, François Philippon, Mikael Trottier, Michel Tessier

#### Abstract

Cardiovascular implantable electronic device (CIED) infection and prosthetic valve endocarditis (PVE) remain a diagnostic challenge. Cardiac imaging plays an important role in the diagnosis and management of patients with CIED infection or PVE. Over the past few years, cardiac radionuclide imaging has gained a key role in the diagnosis of these patients, and in assessing the need for surgery, mainly in the most difficult cases. Both <sup>18</sup>F-fluorodeoxyglucose (FDG) positron emission tomography (PET)/computed tomography (CT) (<sup>18</sup>F-FDG PET/CT) and radiolabelled white blood cell (WBC) single-photon emission computed tomography (SPECT)/computed tomography (WBC SPECT/CT) have been studied in these situations. In their 2015 guidelines for the management of infective endocarditis, the European Society of Cardiology incorporated cardiac nuclear imaging as part of their diagnostic algorithm for PVE, but not CIED infection since the data were judged insufficient at the moment. This article reviews the actual knowledge and recent studies on the use of <sup>18</sup>F-FDG PET/CT and WBC SPECT/CT in the context of CIED infection and PVE, and describes the technical aspects of cardiac radionuclide imaging. It also discusses their accepted and potential indications for the diagnosis and management of CIED infection and PVE, the

#### Match Overview

1	CrossCheck 175 words "EANM' 15", European Journal of Nuclear Medicine and Molecular Imaging, 2015.	3%
2	Internet 146 words crawled on 25-Sep-2015 worldwidescience.org	3%
3	CrossCheck 94 words "EANM Abstracts 2013", European Journal of Nuclear Medicine and Molecular Imaging, 2013.	2%
4	CrossCheck 64 words "Poster presentations", European Journal of Nuclear Medicine and Molecular Imaging, 10/2010	1%
5	CrossCheck 43 words Ricciardi, Alessandra, Pasquale Sordillo, Laura Ceccarelli, Gaetano Maffongelli, Giorgio Calisti, Barbara Di Pietr	1%
6	CrossCheck 38 words Nobuyuki Toshikuni. "Nonfunctioning endocrine pancreatic tumor examined with 18F-FDG PET/CT". Annals of Nu	1%
7	CrossCheck 34 words "Posters", European Journal of Nuclear Medicine and Molecular Imaging, 10/2008	1%
8	CrossCheck 28 words Christopher J. Palestro. "Infectious and Inflammatory Diseases", Hybrid PET/CT and SPECT/CT Imaging, 2009	1%
9	CrossCheck 22 words Tilli, Ghoufrane, Sana Amroui, Charles Mesguich, Annalisa Rivière, Pierre Bordachar, Elif Hindié, and Laurence	<1%
	Publications 19 words	<1%



全部 新闻 图片 视频 更多 ▾ 搜索工具

找到约 34,200 条结果 (用时 0.58 秒)

## Braunwald's Heart Disease: A Textbook of Cardiovascular Medicine

<https://books.google.com.hk/books?isbn=0323290647> - 翻译此页

Douglas L. Mann, Douglas P. Zipes, Peter Libby - 2014 - Medical

III ECG—no ischemic changes or with LBBB or electronically ventricular ... et al: Roles of nuclear cardiology, cardiac computed tomography, and cardiac magnetic ... imaging tests in patients with known or suspected coronary artery disease. .... FDG PET/CT for early diagnosis of cardiac device and prosthetic valve infection ...

## Cardiac imaging in infectious endocarditis | European Heart Journal

[eurheartj.oxfordjournals.org/content/35/10/624](http://eurheartj.oxfordjournals.org/content/35/10/624) ▾ 翻译此页

作者: NE Bruun - 2014 - 被引用次数: 38 - 相关文章

2013年7月30日 - Complicated aortic valve endocarditis: transthoracic ... Algorithm showing the role of echocardiography in the diagnosis and .... Prosthetic valve infective endocarditis .... In the same CT study, a cerebral or abdominal CT scan can be ... in patients with certain cardiac implantable electronic devices (CIEDs).

## Radiolabeled WBC Scintigraphy in the Diagnostic Workup of Patients ...

[imaging.onlinejacc.org/article.aspx?articleid=1735115](http://imaging.onlinejacc.org/article.aspx?articleid=1735115) ▾ 翻译此页

作者: PA Erba - 2013 - 被引用次数: 12 - 相关文章

SPECT/CT imaging had a definite added diagnostic value over both planar and ... Use of cardiovascular implantable electronic devices (CIEDs) has increased ... clinical conditions, such as native and prosthetic valve-related endocarditis (12). ... CIED-related infection as results of conventional tests and clinical guidelines, ...

## Role of PET Imaging in Management of Implantable Electronic Device ...

[imaging.onlinejacc.org/article.aspx?articleid=2492602](http://imaging.onlinejacc.org/article.aspx?articleid=2492602) ▾ 翻译此页

作者: MR Sohail - 2016

Cardiovascular implantable electronic device (CIED) infections typically ... However, a number of clinical questions regarding the role of imaging in CIED infection ... (6) assessed the role of FDG PET/CT in the early diagnosis of CIED pocket ... in this study) is higher than what has been observed in our practice



全部 图片 新闻 视频 更多 ▾ 搜索工具

找到约 42,500 条结果 (用时 0.81 秒)

## Google 学术: Role of radionuclide imaging for diagnosis of device and prosthetic valve infections

... , diagnosis, and treatment of infective endocarditis ( ... - Habib - 被引用次数: 1418

FDG PET of Infection and Inflammation 1 - Love - 被引用次数: 302

... device infections: epidemiology, diagnosis, and ... - Gandelman - 被引用次数: 64

### Nuclear Medicine in Diagnosis of Prosthetic Valve Endocarditis: An ...

[www.hindawi.com/journals/bmri/2015/127325/](http://www.hindawi.com/journals/bmri/2015/127325/) ▾ 翻译此页

作者: M Musso - 2015 - 被引用次数: 1 - 相关文章

2014年10月14日 - The fatality rate of prosthetic valve endocarditis (PVE) remains stable over ... In the last years, these new imaging modalities have gained an increasing ... evidence on the role of nuclear medicine techniques in the diagnosis of PVE. ... Infective endocarditis in patients with an implanted cardiac device and ...

### The potential of FDG PET/CT for early diagnosis of cardiac device and ...

[www.ncbi.nlm.nih.gov/pubmed/24482013](http://www.ncbi.nlm.nih.gov/pubmed/24482013) ▾ 翻译此页

作者: W Chen - 2014 - 被引用次数: 15 - 相关文章

Diagnosis of cardiac mechanical device or prosthesis valve infection, and more ... based imaging studies, such as echocardiography or CT, are uncertain or negative. ... Endocarditis/radionuclide imaging; Fluorodeoxyglucose F18; Heart Valve ...

### New diagnostic approaches in infective endocarditis -- Millar et al ...

[heart.bmj.com](http://heart.bmj.com) ▸ Online First - 翻译此页

作者: BC Millar - 2016 - 相关文章

To understand the role molecular microbiological techniques play in aiding in the ... To appreciate the potential use and limitations of nuclear imaging, namely ... in diagnosing prosthetic valve IE, cardiac-device-associated IE and detection of ...



全部 图片 新闻 视频 更多 ▾ 搜索工具

找到约 59,200 条结果 (用时 0.52 秒)

## Google 学术: Role of radionuclide imaging for diagnosis of device and prosthetic valve infections

..., diagnosis, and treatment of infective endocarditis ( ... - Habib - 被引用次数: 1427

FDG PET of Infection and Inflammation 1 - Love - 被引用次数: 302

... device infections: epidemiology, diagnosis, and ... - Gandelman - 被引用次数: 64

## Nuclear Medicine in Diagnosis of Prosthetic Valve Endocarditis: An ...

[www.hindawi.com/journals/bmri/2015/127325/](http://www.hindawi.com/journals/bmri/2015/127325/) ▾ 翻译此页

作者: M Musso - 2015 - 被引用次数: 1 - 相关文章

2014年10月14日 - The fatality rate of prosthetic valve endocarditis (PVE) remains stable over ... In the last years, these new imaging modalities have gained an increasing ... evidence on the role of nuclear medicine techniques in the diagnosis of PVE. ... Infective endocarditis in patients with an implanted cardiac device and ...

## The potential of FDG PET/CT for early diagnosis of cardiac device and ...

[www.ncbi.nlm.nih.gov/pubmed/24482013](http://www.ncbi.nlm.nih.gov/pubmed/24482013) ▾ 翻译此页

作者: W Chen - 2014 - 被引用次数: 16 - 相关文章

Diagnosis of cardiac mechanical device or prosthesis valve infection, and more ... based imaging studies, such as echocardiography or CT, are uncertain or negative. ... Endocarditis/radionuclide imaging; Fluorodeoxyglucose F18; Heart Valve ...

## <sup>18</sup>F-FDG-positron emission tomography (PET) has a role to play in the ...

[www.ncbi.nlm.nih.gov/pubmed/23313465](http://www.ncbi.nlm.nih.gov/pubmed/23313465) ▾ 翻译此页

作者: BC Millar - 2013 - 被引用次数: 38 - 相关文章

2013年1月11日 - In recent years, molecular imaging with positron emission tomography (PET) ...