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Interesting Image

심근관류 SPECT와 64채널 전산화 단층혈관 촬영 사진 융합으로 증명된 radius intermedius 협착에 의한 심근관류 저하

영남대학교 의과대학 핵의학교실[1], 내과학교실[2]
공은정[1] · 조인호[1] · 천경아[1] · 원규장[2] · 이형우[2] · 박종선[2]

Radius Intermedius Stenosis Induced Myocardial Perfusion Defect : Provened by the Fusion Images of Myocardial Perfusion SPECT and 64 Channel CTA

Eun-Jung Kong, M.D.[1], Ihn-Ho Cho, M.D.[1], Kyung-Ah Chun, M.D.[1],
Kyu-Chang Won, M.D.[2], Hyung-Woo Lee, M.D.[2], and Jong-Seon Park, M.D.[2]
Department of [1]Nuclear Medicine and [2]Internal medicine, Yeungnam University, College of Medicine, Daegu, Korea

A 71-year-old woman was assigned to our department for Tc-99m myocardial perfusion SPECT(MPS) and coronary CT angiography. She admitted for substernal pain, via the ER, 2 days ago. The heart was scanned after intravenous injection of 925 MBq of ^{99m}Tc-sestamibi adenosine-induced stress SPECT using dual head gamma camera (Hawkeye, GE healthcare. USA).

The MPS shows decreased tracer uptake in the apical & mid area of anterior & lateral wall and mid & basal inferior wall.

Coronary CT angiograph was obtained using Discovery VCT (GE healthcare). 3D angiography portrayed significant stenosis of ramus intermedius(RI) and posterolateral branch of right coronary artery(PLB) with fibrocalcified plaque. Two images were fused using Cardiac IQ fusion softwear package (Advantage workstation 4.4, GE healthcare) The fusion images explain the perfusion defect of anterior, lateral and inferior wall is due to stenosis of the RI and PLB.

And 3 days later, coronary angiography was done and revealed the marked stenosis of RI and PLB. Then balloon angioplasty and stent was instituted in RI.

Cardiac SPECT/CT fusion imaging provides additional information about hemodynamic relevance and facilitates lesion interpretation by allowing exact allocation of perfusion defects to its subtending coronary artery.[1,2] (Nucl Med Mol Imaging 2008;42(1):77-78)

Key Words: myocardium, perfusion, SPECT, CT, coronary angiography, fusion

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• Address for reprints: Ihn-Ho Cho, M.D., Department of Nuclear Medicine, Yeungnam University Hospital, #317-1 Daemyung 5-dong, Nam-gu, Daegu 705-717, Korea
Tel: 82-53-620-3078, Fax: 82-53-651-7415
E-mail: ihcho@med.yu.ac.kr

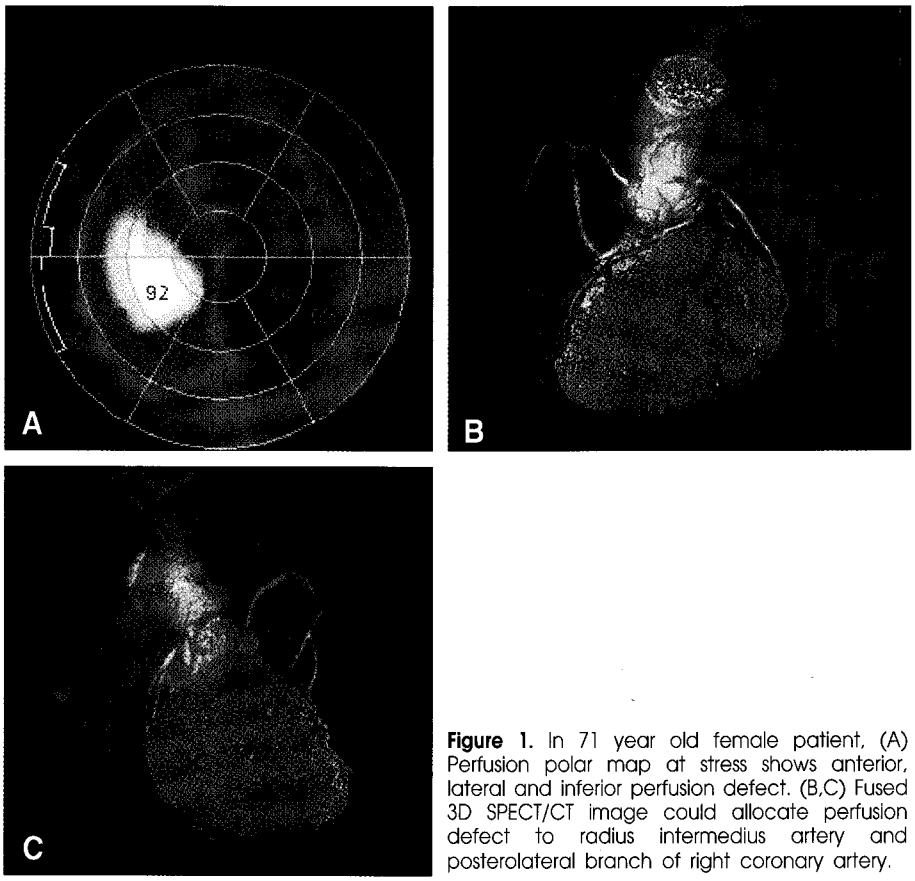

Figure 1. In 71 year old female patient, (A) Perfusion polar map at stress shows anterior, lateral and inferior perfusion defect. (B,C) Fused 3D SPECT/CT image could allocate perfusion defect to radius intermedius artery and posterolateral branch of right coronary artery.

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