

Increased FDG uptake in the wall of the right atrium in people who participated in a cancer screening program with whole-body PET

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The purpose of this study was to evaluate the characteristics of patients who showed increased FDG uptake in the wall of the right atrium.

We have encountered 10 patients with increased activity in the wall of the right atrium among a total of 2,367 examinees who participated in our cancer screening program with whole-body PET. The mean age of these examinees was 62.9 yr, higher than that of the total population. All suffered from cardiac disorders, especially atrial fibrillation. FDG accumulated almost exclusively in the wall of the right atrium, whereas only slight activity was seen in the wall of the left atrium. Although the average size of the right atria was significantly enlarged, left atria were more severely dilated than right ones. Therefore overload does not seem to account for the FDG accumulation in the wall of the right atrium.

In conclusion, the increased activity in the wall of the right atrium was a rare finding that was made in older people who suffered from cardiac disease. Although the mechanism of induction of the high metabolic state of glucose in the wall of the right atrium remains unclear, this unusual activity would be another false positive finding in cancer screening with whole-body FDG PET.

Key words: fluorine-18 fluorodeoxyglucose (FDG), right atrium, atrial fibrillation