



2-[18F]fluoro-2-deoxy-D-glucose positron emission tomography (FDG-PET) can identify chronic lymphocytic leukaemia (CLL) stage A et stage B patients

Submitted by Emmanuel Lemoine on Fri, 07/18/2014 - 13:55

Titre	2-[18F]fluoro-2-deoxy-D-glucose positron emission tomography (FDG-PET) can identify chronic lymphocytic leukaemia (CLL) stage A et stage B patients
Type de publication	Article de revue
Auteur	Berthelot, Cécile [1], Truchan-Graczyk, Malgorzata [2], Genevieve, F. [3], Poirier, Anne-Lise [4], Artur-Guillemette, P. [5], Vervueren, Laurent [6], Ifrah, Norbert [7], Le Jeune, Jean-Jacques [8], Couturier, Olivier-François [9]
Editeur	Elsevier Masson
Type	Article scientifique dans une revue à comité de lecture
Année	2009
Langue	Anglais
Date	2009
Numéro	9
Pagination	539-546
Volume	33
Titre de la revue	Medecine Nucleaire
ISSN	0928-1258
Mots-clés	Adult [10], Aged [11], area under the curve [12], article [13], axillary lymph node [14], cancer staging [15], chronic lymphatic leukemia [16], Chronic lymphocytic leukaemia [17], clinical article [18], controlled study [19], diagnostic value [20], diaphragm [21], FDG [22], Female [23], Fluorodeoxyglucose [24], fluorodeoxyglucose f 18 [25], Human [26], image analysis [27], Male [28], mediastinum [29], PET [30], positron emission tomography [31], receiver operating characteristic [32], Sensitivity and Specificity [33], Student t test [34]

Résumé en
anglais

Purpose: There is no data in the literature concerning the utility of 2-[18F]fluoro-2-deoxy-d-glucose positron emission tomography (FDG-PET) in chronic lymphocytic leukaemia (CLL), except for the diagnosis of Richter's transformations. The purpose of this study was to assess the potential role of FDG-PET in CLL stages A and B. Materials and methods: Thirty-five patients (61 \pm 9 years; 11 women, 24 men; 8B and 27A) have benefited of a FDG-PET scan at baseline, for example, before an eventual treatment. FDG-PET scans were analyzed visually and the maximum values of the Standardised Uptake Value (SUVmax) were measured in the main lymph nodes areas. The ability of FDG-PET to differentiate stages A and B patients was evaluated by Student's tests and Receiver Operating Characteristics (ROC) analysis. Results: All patients with a normal FDG-PET (n = 18) were stages A. The remaining 17 patients (9A and 8B) showed hypermetabolisms in nodal areas above (n = 17) and below (n = 9) the diaphragm, and no visceral involvement. The lymph nodes hypermetabolisms were always bilateral, and of low intensity (\leq mediastinum; 9A), or of higher intensity (\geq liver, 8B). The SUVmax of stage B (n = 8) were significantly higher than those of the 27 stages A, in all lymph nodes areas except in mediastinum. The highest intensity of FDG uptake was observed in axillary area in stages B patients (SUVmax = 2.74 \pm 1.03). An axillary SUVmax of 1.33 is the most suitable value for the discrimination between stages A and B patients (ROC; AUC = 0.968; sensitivity 1.00; specificity 0.91). Conclusion: Lymph nodes hypermetabolisms are constant in the B stage, and more intense than in stage A. These anomalies are always bilateral, unlike what is observed in Richter's transformation. The intensity of axillary lymph nodes FDG uptake can distinguish CLL stages A and B.

URL de la
notice

<http://okina.univ-angers.fr/publications/ua3758> [35]

DOI

10.1016/j.mednuc.2009.03.006 [36]

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- [36] <http://dx.doi.org/10.1016/j.mednuc.2009.03.006>

Publié sur *Okina* (<http://okina.univ-angers.fr>)