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Olfactory Test Contributions in the Diagnosis and Follow-Up of MCI and MA Patients

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Abstract

To prevent earlier AD, the olfactory test could be used as a non-invasive and non-expensive tool. To do so we propose to bring together professional of the recommendations and use them to create a specific tool.

Keywords: Alzheimer's Disease; Olfactory test

Introduction

The aging of the population is associated with an increase in people with Alzheimer's disease (AD) which causes the cost of care in this population to be more expensive. To rise the opportunity to prevent or delay the AD, markers of early detection are essential. All studies are unanimous and validate the identification of odors as a biomarker of the preclinic stage in AD [1-2]. Olfactive disease is a precursor to the transformation of mild cognitive impairment to AD [3] and is as sensitive as other biological biomarkers [4]. In practice there are still very few practitioners who use olfactory test on early stage. In clinical research the literature reviews point to a high variability in the tools used: either by their connotation too culturally marked, or because the choice of odors can de discuss, or the specificity of the tool is too low [5]. There is a real lack of consensus that is detrimental to the common use. To improved public health and reduce the overall cost of this disease and allow early detection, it is necessary to act as soon as possible to react before the AD clinical phase. It will allow patients to stay longer at home as well to reduce their partner burden [6].

A gold standard olfaction test needs to be specific and recognized tool, so professionals have guarantees before they can do without other biological tests. There are some restrictive factors to use an olfactory test to be known, such as psychiatrist pathology (schizophrenia), Parkinson disease, vascular disease and Lewy body dementia and odor identification test can be bias in active smokers and people with current upper sinus infections [7].

We therefore propose to carry out an appropriate reflection with the professionals concerned to propose the development of a test according to their recommendations and expectations [8]. Thorough work on the validity of the test should allow it to be used without as a standard. It will also be necessary to evaluate the ecological functions of such a tool because impairment in odors identification predicts mortality risk and leads to increase accidents at home [3]. Therefore, the creation of an olfactory identification test dedicated to the OD in AD, sensitive and valid seems to us a reachable goal provided to create it according to the expectations. If this test is successful, it can be used to include this early biomarker in the diagnosis and to do so will promote the link between the research and the clinical practices, and to include this work in a public health goal. If that can delay the onset of symptoms by five years we could then see the prevalence and severity of AD decreasing.

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