Rayment et al. have written a useful update on the role of neuroimaging in the assessment of people with dementia, reiterating the NICE guideline in stressing its role in ruling out treatable causes of cognitive impairment and in making a subtype diagnosis.

Making the diagnosis in a person with suspected dementia is a question of putting together the pieces of a jigsaw. The biggest and most important pieces are a careful history (from the patient and an informant who knows them well) and the examination of the patient (including physical examination and cognitive testing).

Dementia is a clinical diagnosis. Neuroimaging may contribute one piece to the jigsaw, but in people with moderate or advanced dementia may not be necessary if it is not going to affect that person’s management: in many of our elderly patients it is not clear whether the scan shows an age-related reduction in brain volume or atrophy related to dementia.

The NICE-SCIE Dementia guideline¹ says that:
- ‘The importance of structural and functional neuroimaging (in dementia) is debated.’
- ‘Systematic reviews have suggested that between 2.2% and 5% of cases with suspected dementia had conditions that required structural neuroimaging to assist with diagnosis.’
- ‘… brain imaging changes are not absolutely diagnostic in any individual but may be used to inform clinical judgement regarding diagnosis and likelihood of progression.’

The issue of where assessment and diagnosis of people with suspected dementia should best be conducted is another matter for debate and may link to some extent with clinicians’ attitudes to neuroimaging. A variety of models are in use. We have to declare an interest. Having worked with several different models, we are involved in running a primary care memory clinic (PCMC) where assessment and diagnosis rests on putting together the jigsaw of information from patient, family, GP and appropriate tests. Sometimes neuroimaging is useful, for example in the case of younger people who present with early signs and symptoms of suspected dementia and are more likely to have rare conditions, or in people with atypical presentations. We acknowledge that patients and families sometimes have unrealistic expectations of the contribution that neuroimaging makes to diagnosis and have honest conversations with them about its role. We agree with Rayment and colleagues that it is important for clinicians to understand how neuroimaging might help. It is also important to place it in the context of careful clinical diagnosis that respects the individual, their family and the things that are important in their lives.

Dementia is a long-term condition and careful diagnosis is only a first step which might, or might not, involve neuroimaging. Post-diagnosis support is necessary for patient and family, along with access to appropriate health and social care services as their condition progresses. However thoughtful and accurate the initial diagnosis, this effort comes to naught if it leaves the patient and family on their own without support. We have shown in the Gnosall PCMC that the primary care team can be the lynchpin in the whole process, starting the process of assessment and diagnosis, and then coordinating a care plan and accompanying the patient and family in their journey with dementia.

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Reference