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Trauma Reenactments in Aging Veterans with Dementia

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To the Editor:

Two recent studies^{1,2}, including one reported in the *Journal of the American Geriatrics Society*,¹ utilized Veterans Administration (VA) patient data bases to establish posttraumatic stress disorder (PTSD) as a risk factor for dementia. PTSD and dementia are common and place considerable burden on patients, caretakers, and society.^{3,4} The co-occurrence of conditions involving memory loss (dementia) and intrusive expression of trauma memories (PTSD) underscores the need to better understand their interactions.

Reports of cases where PTSD worsened with cognitive decline⁵ and mild cognitive impairment as a precipitant for “delayed onset PTSD”⁶ suggest that pathways between dementia and PTSD are bidirectional, and that neurodegeneration can disinhibit trauma memories. Current models of PTSD refer to amygdala activation that is inadequately inhibited by higher cortical structures.⁷ Specific dementia subtypes affect cortical and subcortical structures differently.⁸ The objectives of our study were to characterize activation of war trauma memories in veterans with dementia and evaluate relationships with dementia subtypes.

This study was inspired by dramatic presentations evaluated by the Principal investigator (PI) (DLD). It was conducted by reviewing patient records and was approved by the Washington DC VA Medical Center Institutional Review Board. Cases were identified from the complete roster of psychiatric evaluations for a geriatric medicine clinic over a two year period based on a diagnosis of dementia and a caregiver’s report of new onset disruptive behavior related to patients’ traumatic military experiences. Controls were selected at a 2:1 ratio by identifying patients with dementia who had also served in a war zone but did not have reports of reenactments of traumatic military experiences.

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Project was conducted at the Washington DC Veterans Affairs Medical Center

Conflict of Interest: The editor in chief has reviewed the conflict of interest checklist provided by the authors and has determined that the authors have no financial or any other kind of personal conflicts with this paper.

Dr Mellman has recently been engaged as a consultant to Eisai pharmaceuticals. The activity has no relationship to the study report.

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After cases and controls were identified from the clinic roster by the PI, their chart files were reviewed by post graduate trainees guided by a chart review instrument. Data included demographics; war theater of service; the presence of PTSD, hypertension, diabetes, stroke, Parkinson's disease (PD), symptoms associated with Lewy body dementia (LBD) (severe sensitivity to antipsychotic medications, visual hallucinations, and severe sleep wake disturbance); and dementia subtypes which had been previously diagnosed by the PI (DLD) utilizing available clinical and laboratory data.

Sixteen cases out of 197 (8%) patients seen by the PI during the study period met the case criteria. All had episodes with vocalizations of war-related references, e.g. asking for help from soldiers, "secure the perimeter". For all cases, most episodes occurred at night and appeared to arise from sleep. Seven had episodes where they had been physically combative including by shielding a spouse from perceived danger.

All of the cases and 2 of the 32 controls had prior diagnoses of PTSD ($p < .001$). There were no differences in the frequency of other diagnoses except a trend for higher rates of strokes ($p < .09$), and LBD features were more frequent in the cases (all p 's $< .001$). As indicated in the Figure, the distribution of dementia subtypes was significantly different in the 2 groups with all but one case having been diagnosed with a subcortical type of dementia.

While preliminary due to the limitations of retrospective chart review and the experience of one clinic, our observations suggest that trauma related re-enactments are not uncommon among aging war veterans with dementia and occur in those previously diagnosed with PTSD. Episodes that appear to be dissociative flashbacks can be quite dramatic and disruptive. We also found a predominance of sleep related episodes and a preliminary association with subcortical dementias. These associations suggest a relationship with REM behavior disorder (RBD) which features behavioral enactments during sleep due to failure of the normal inhibition of motor activity of rapid eye movement sleep. RBD has been found to be a prodrome of LBD and PD⁹ and has been linked to PTSD.¹⁰ Thus RBD might provide a relevant model for understanding relationships between trauma memory reactivation of PTSD and dementia.

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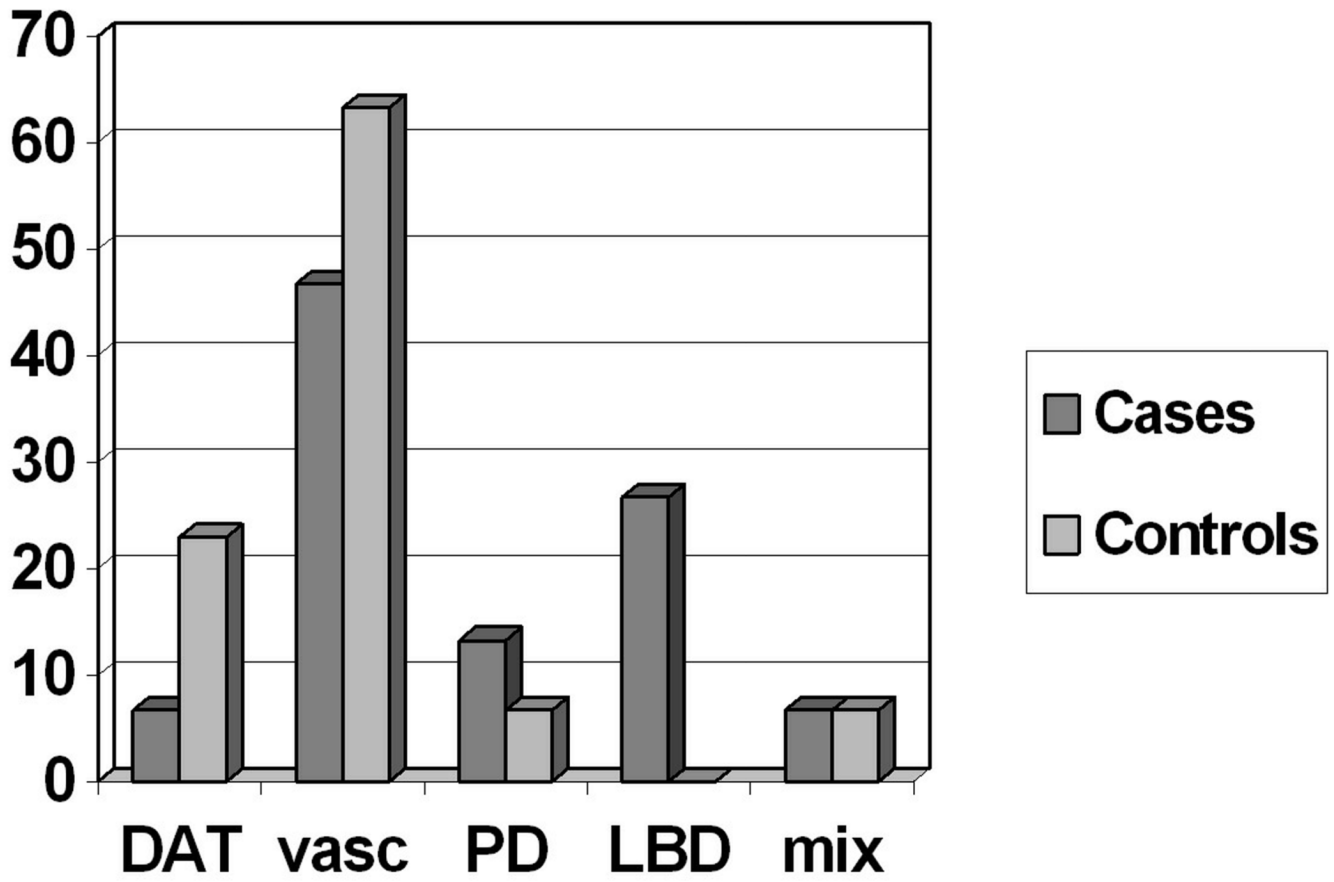


FIGURE. Percent of cases and controls with specific dementia subtypes

$\chi^2 = 11.3; p < .02$

DAT – Dementia of the Alzheimer’s type

vasc – Vascular dementia

PD – Parkinson’s dementia

LBD – Lewy Body dementia

mix – mixed dementia subtypes