8.
Anti-Inflammatory Medications as Dementia Retardants

Long-term use of non-steroidal anti-inflammatory drugs (NSAID's) may protect against Alzheimer's disease by diminishing inflammatory response to amyloid deposits. The brain's intrinsic inflammatory response may contribute to damage produced by Alzheimer's disease and other degenerative disorders. Inflammatory damage may be mediated through two mechanisms: 1) the immune response provoked by deposition of amyloid within brain parenchyma and 2) immune response to damaged blood vessels within the human cerebral cortex. Human senile plaques often contain microglial cells and other evidence of inflammatory responses. Alpha 1 chymotripsin may be contributory to the neurodegenerative process and this inflammatory protein is over-expressed in the brains of some patients with Alzheimer's disease. Longitudinal studies demonstrate that elevated levels of C-reactive proteins are associated with cognitive decline and cerebrovascular or cardiovascular disease. These non-specific inflammatory molecules may contribute to some microvascular damage that occurs in the brains of patients with Alzheimer's disease.

Several longitudinal studies suggest that older individuals who take non-steroidal inflammatory medication may have a diminished risk for cognitive decline. The impact of non-steroidal anti-inflammatories on individuals with mild cognitive impairment is largely unknown.

Non-steroidal anti-inflammatory medication can produce significant acute and long-term complications including gastrointestinal hemorrhage. Definitive randomized studies to determine the long-term cognitive benefits of NSAIDS in middle life have not been performed and these studies are unlikely to be undertaken. **(Click here for references – 2315.83)**.

Recommendation

Available clinical evidence indicates that NSAIDS should not be used as a preventive intervention for the treatment of Alzheimer's disease or mild cognitive impairment. Individuals receiving these medications for other reasons, such as arthritis, can be informed that a small beneficial effect may be provided from these drugs. **For more information, click here – 2513.81, 2513.85**

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