

Treatment Strategies & Prognosis for Alzheimer's disease

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COMMENTARY

There is no cure for Alzheimer's disease at present, nor are there any major disease modifying therapies. However, there are various medications can temporarily improve symptoms.

Current Medications

- Acetylcholinesterase (AChE) Inhibitors – the levels of a key neurotransmitter, acetylcholine, is thought to be reduced in Alzheimer's disease. AChE inhibitors work to prevent the breakdown of acetylcholine, thus increasing the levels in the brain. These include rivastigmine and donepezil.
- Glutamate Inhibitors – such as memantine
- Antidepressants e.g. SSRIs and Antipsychotics e.g. risperidone

These medications only manage the condition by helping treat some of the symptoms; however, none of them treats the underlying causes and pathology. Underlying cardiovascular disease and its risk factors can be modified using medications for diabetes, high blood pressure, high cholesterol (such as statins) and heart problems (such as aspirin).

Non-Medication Approaches

- Cognitive Rehabilitation – in conjunction with a trained therapist, as well as caregiver, personal goals such as performing everyday tasks can be slowly achieved
- Cognitive Stimulation – taking part in social/group activities that can help improve memory and problem-solving skills
- Reminiscence – actively talking about events from the past by using visual aids (e.g. photographs) and music. This can improve mood and wellbeing.
- Music from the past has also been shown to stimulate forgotten memories, as well as improve mood and behaviour (calming effect). It has also reduced social isolation and encourage social interaction and in the expression of feelings.

As with medications; which may be used in combination with non-medication approaches, symptoms are only transiently ameliorated, and the disease course will gradually worsen.

Alternative Treatments & Preventions

There are numerous alternative therapies that are thought to help patients with dementia, though evidence for the effectiveness is lacking. Some of these include:

- Turmeric (Curcumin)
- Coconut Oil
- Bright Light Therapy (in the treatment of disturbed sleep in Alzheimer's disease)

The effectiveness of these supplements is not yet fully proven, but these supplements usually will not cause harm if used in moderation. As with most alternative medicines, the majority of large-scale studies do not seem to show any significant effects of such medicines on the positive treatment of health conditions. When considering alternative medicines, patients and caregivers should not forgo conventional medicines and therapies in favour of alternative medicines.

Current Clinical Trials

There are several notable clinical trials in progress that aim to study the effects of various treatments:

- Sargramostim – reduces the accumulation of beta-amyloid
- MK8931 – selective beta-secretase inhibitors (reduced production of amyloid)
- CAD106 – induces immunity to beta-amyloid without triggering an autoimmune response
- TRx0237 – inhibits the accumulation of tau
- Intranasal insulin – improvement of blood sugar control and insulin resistance in the brain

Whether these therapies are able to effectively modify disease course and improve symptoms significantly is yet to be seen.

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Received date: June 05, 2021; **Accepted date:** June 19, 2021; **Published date:** June 26, 2021

Citation: Karin Zimmermann (2021) Treatment Strategies & Prognosis for Alzheimer's disease. *Pediatr Ther.* 11:386.

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Support for Individuals and Caregivers

Getting a dementia diagnosis can be a difficult and upsetting for the individual and close family and friends. However, there are many excellent organisations that offer support for patients and caregivers.

In the UK, there is Alzheimer's Research UK & Alzheimer's Society. In the US, there is the Alzheimer's Foundation of America & Alzheimer's Association. There are also international organisations such as Alzheimer's disease International. Their websites contain lots of information about accessing support services, as well as more information about the condition.