Risk factors for Alzheimer's disease

What is Alzheimer's disease?

Alzheimer's disease is a progressive disease that destroys memory and other important mental functions. It's the most common cause of dementia (a group of brain disorders that result in the loss of intellectual and social skills). It involves parts of the brain that control thought, memory, and language. These changes are severe enough to interfere with day-to-day life.

In Alzheimer's disease, the brain cells themselves degenerate and die, causing a steady decline in memory and mental function.

Current Alzheimer's disease medications and management strategies may temporarily improve symptoms. This can sometimes help people with Alzheimer's disease maximize function and maintain independence.

What are the risk factors for Alzheimer's Disease?

Increasing age is the greatest known risk factor for Alzheimer's. Alzheimer's is not a part of normal aging, but your risk increases greatly after you reach age 65.

However the following risk factors for Alzheimer have been identified:

- Family history and genetics:

Your risk of developing Alzheimer's appears to be somewhat higher if a first-degree relative has the disease.

Scientists have identified rare changes (mutations) in three genes that virtually guarantee a person who inherits them will develop Alzheimer's. But these mutations account for less than 5 percent of Alzheimer's
disease. Most genetic mechanisms of Alzheimer's among families remain largely unexplained. However, the strongest risk gene researchers have found so far is apolipoprotein e4 (APOE e4).

- Gender:
  Women may be more likely than men to develop Alzheimer's disease.

- Lifestyle and heart health:
  There's no lifestyle factor that's been conclusively shown to reduce your risk of Alzheimer's disease. However, some evidence suggests that the same factors that put you at risk of heart disease also may increase the chance that you'll develop Alzheimer's. Examples include:

1- Lack of exercise
2- Smoking
3- High blood pressure
4- High blood cholesterol
5- Elevated homocysteine levels
6- Poorly controlled diabetes
7- A diet lacking in fruits and vegetables

- Lifelong learning and social engagement:
  Studies have found an association between lifelong involvement in mentally and socially stimulating activities and reduced risk of Alzheimer's disease.

- Brain trauma:
  History of severe brain trauma with loss of consciousness of 30 minutes or more has been associated with an increased risk of Alzheimer's disease.
Conclusion:
We concluded the following risk factors for Alzheimer's disease:

| TABLE 1 |
|-----------------|-----------------|
| **ALZHEIMER’S DISEASE: RISK FACTORS** |
| Age |  |
| Female gender |  |
| ApoE-4 genotype |  |
| Family history of dementia |  |
| Hypercholesterolemia |  |
| Hyper-homocysteinemia |  |
| Diabetes |  |
| Head injury |  |
| Psychological stress |  |
| Hypertension |  |
| Smoking |  |
References:

   http://www.cdc.gov/aging/aginginfo/alzheimers.html
   http://www.mayoclinic.org/diseases-conditions/alzheimers-disease/basics/risk-factors/con-20023871

Prepared by:
pharm.Ds: Afnan abu shqair, Esra'a al-zaidaneen, Hamas al-zuot.

Reviewed By : Pharm.D Neda Rwashdeh.