

NATURAL WAY OF REVERSAL OF AGING PROCESS(NEW)

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Introduction

Aging is changes in biological, physiological, environmental, psychological, behavioural, and social processes. aging will likely cause wrinkles and gray hair. It is the process of becoming older. Ageing can refer to single cells within an organism which have ceased dividing (cellular senescence). Ageing is among the greatest known risk factors for most human diseases: of the roughly 150,000 people who die each day across the globe, about two thirds die from age-related causes.

Etiopathogenesis

The causes of ageing are uncertain. But . Recent theories are assigned to the damage concept, whereby the accumulation of damage (such as DNA oxidation) may cause biological systems to fail, or to the programmed ageing concept, whereby internal processes (such as DNA methylation) may cause ageing.

My Aetiology Based on (1)Sirtuins Pathway(2) Telomere (3)Oxidation of DNA(4) loss of proteostasis (protein folding and proteolysis)(5)VLCD(6)Lymphatic Message on Whole body and Genital

(1)Sirtuins Pathway

Sirtuins are a class of proteins that possess either mono-ADP-ribosyltransferase, or deacylase activity, Sirtuins have been implicated in influencing a wide range of cellular processes like aging, transcription, apoptosis, inflammation and stress resistance. Sirtuins activity is inhibited by nicotinamide, agents to treat degenerative diseases such as cancer, diabetes, atherosclerosis, and gout.

DIABETES

Sirtuins have been proposed as a therapeutic target for type II diabetes mellitus.

Aging

Many studies shows that Resveratrol, a possible SIRT1 activator, have led some scientists to speculate that Resveratrol may extend lifespan. Resveratrol can reproduce the effects of exercise and caloric restriction such as lowered blood pressure, sugar levels, and metabolic rate. These findings aid scientists to come to the reasoning that it can slow down the metabolism and increase lifespan. SIRT1, SIRT6 and SIRT7 proteins are employed in DNA repair.

Thus I apply why not to feed Sirtuins containing diets which can reduce Aging process.

CONCLUSIONS

Many data presented in the literature show sirtuins as a powerful tool in anti-ageing medicine/approach. Natural compounds present in the diet, classed as functional

food/nutraceuticals, could be an invaluable element of anti-ageing prophylactics or even intervention. Such compounds are nontoxic, easy to use and commonly available and could be included into a normal diet for long lasting supplementation

(2)TELOMERE

A telomere is a region of repetitive nucleotide sequences at each end of a chromosome, which protects the end of the chromosome from deterioration or from fusion with neighbouring chromosomes. Over time, due to each cell division, the telomere ends become shorter. Telomeres are repetitive nucleotide sequences located at the termini of linear chromosomes.

Telomeres shorten in part because of the *end replication problem* that is exhibited during DNA replication.

It is becoming apparent that reversing shortening of telomeres through temporary activation of telomerase may be a potent means to slow aging.

Measurement of Telomere

"DR PANDA SAYS:LONGER THE TELOMERE=LONGER THE LIFE SPAN"

Real-Time PCR assay for telomere length involves determining the Telomere-to-Single Copy Gene (T/S)ratio, which is demonstrated to be proportional to the average telomere length in a cell.

Telomeres play a central role in cell fate and aging by adjusting the cellular response to stress and growth stimulation on the basis of previous cell divisions and DNA damage. At least a few hundred nucleotides of telomere repeats must "cap" each chromosome end to avoid activation of DNA repair pathways. Repair of critically short or "uncapped" telomeres by telomerase or recombination is limited in most somatic cells and apoptosis or cellular senescence is triggered when too many "uncapped" telomeres accumulate. The chance of the latter increases as the average telomere length decreases. The average telomere length is set and maintained in cells of the germline which typically express high levels of telomerase. In somatic cells, telomere length is very heterogeneous but typically declines with age, posing a barrier to tumour growth but also contributing to loss of cells with age. Loss of (stem) cells via telomere attrition provides strong selection for abnormal and malignant cells, a process facilitated by the genome instability and aneuploidy triggered by dysfunctional telomeres. The crucial role of telomeres in cell turnover and aging is highlighted by patients with 50% of normal telomerase levels resulting from a mutation in one of the telomerase genes. Short telomeres in such patients are implicated in a variety of disorders including dyskeratosis congenital, aplastic anaemia, pulmonary fibrosis, and cancer. Here the role of telomeres and telomerase in human aging and aging associated diseases is reviewed.

CONCLUSIONS

Sufficient data is there loss of telomere repeats in (stem) cells and lymphocytes contributes to human aging. This notion is widely accepted. However, studies of model organisms as well as patients with telomerase mutations have shown that short telomeres result in dire consequences. It seems plausible that, with age, the proliferation of an increasing number of cells in normal individuals is compromised by progressive telomere loss. each time a cell divides, the telomeres get shorter. When they get too short, the cell can no longer divide; it becomes inactive

or "senescent" or it dies. This shortening process is associated with aging, cancer, and a higher risk of death. So telomeres also have been compared with a bomb fuse.

*** you can protect and lengthen your telomeres with meditation, exercise, and a diet full of healthy fats and vegetables.

(3)OXIDATION OF CELL

A constant accumulation of oxidized proteins takes place during aging. Oxidation of proteins leads to a partial unfolding and, therefore, to aggregation. Protein aggregates impair the activity of cellular proteolytic systems (proteasomes, lysosomes), resulting in further accumulation of oxidized proteins. In addition, the accumulation of highly crosslinked protein aggregates leads to further oxidant formation, damage to macromolecules, and, finally, to apoptotic cell death. protein oxidation seems to play a role in the development of various age-related diseases, for example, neurodegenerative diseases. The nervous system seems to be very susceptible to oxidative damage due to the high oxygen consumption .

CONCLUSIONS

Many data showing protein oxidation, accumulation of oxidized proteins, and protein aggregation as well as the impairment of the proteasomal system play a major role in the aging process and in the development of some, if not all, age-related diseases. In particular, the accumulation of lipofuscin during aging is an indication of the involvement of protein oxidation in the aging process. Accumulation and aggregation of oxidized proteins and impairment of the proteasomal system are two mechanisms that are interdependent. The process of oxidation-related protein aggregation would potentially slow down the aging process or the progression of diseases related to aging.

***Here if we can add with anti-Oxidants which can prevent aging.

(4) loss of proteostasis (protein folding and proteolysis)

Proteostasis is the concept that there are competing and integrated biological pathways within cells that control the biogenesis, folding, trafficking and degradation of proteins present within and outside the cell. The concept of proteostasis maintenance is central to understanding the cause of diseases associated with excessive protein misfolding and degradation leading to loss-of-function phenotypes, as well as aggregation-associated degenerative disorders. Cellular proteostasis is key to ensuring successful development, healthy aging, resistance to environmental stresses, and to minimize homeostasis.

Intervention in proteostasis

There are two main approaches(1) pharmacologic chaperones (2) proteostasis regulators.
pharmacologic chaperones

The balance between protein synthesis, folding, and degradation is a closely monitored and highly dynamic process that is critical to maintain cellular protein homeostasis, *i.e.*, proteostasis. PCT(pharmacological chaperone therapy) appears to have the potential to address some of the medical needs currently available therapies.

HOW TO REVERSE AGEING PROCESS BY FOODS SUPPLEMENTATION

Sirtuins foods(SIRTFOODS)are having enormous health benefits. These foods causes increase in longevity and quality of life.

1.Blackburries

It contains types of antioxidants anthocyanins which reduces Heart attack, Heart failure, good for Diabetes.

2.Green Tea

Green Tea is now widely consumed beverages next to water. It contains B Complex,Foile acids,Manganese,Pottasium,Magnesium,Caffeine and other anti-Oxidants. It causes weightloss,Reduces Cholesterol, Combat cardio vascular disease. Prevents Dementia.2-3 Cups of Tea per day is good.

3.Kale

Vegetable with Green and Purple leaves. It reduces aging.

4.Olives and Extra virgin Olive oil

Olives is worlds one of the best food. Olive eliminates excess cholesterol, Controls blood pressure, Olives are rich in nutritious and rich in Minerals, Provides essential Vitamins and amino acids.

5.Parsley/Dhania Leaves

Worlds Popular herbs. Leaves contains Zero Cholesterol and Fat rich in Anti-Oxidants,Minerals.Contains volatile oil, Flavonoids and Vit k.

6.Capers

The plant is best known for the edible flower buds (**capers**). The caper was used in ancient Greece as a carminative & Anti aging Foods.

7.ONIONS

common onion, is a vegetable that is the most widely cultivated species . Consuming fruits and vegetables of all kinds has long been associated with a reduced risk of many lifestyle-related health conditions.

Many studies have suggested that increasing consumption of plant foods like onions decreases the risk of overall mortality, diabetes, and heart disease.

Plant foods also promote a healthful complexion, hair, increased energy, and overall lower weight. and Cancer.

Allium vegetables have been studied extensively in relation to cancer, especially stomach and colorectal cancers. Their beneficial and preventive effects are likely due in part to their rich organosulfur compounds.

(8)TURMERIC

These compounds are called curcuminoids, the most important of which is curcumin.

Curcumin is the main active ingredient in turmeric. It has powerful anti-inflammatory effects and is a very strong antioxidant.

However, the curcumin content of turmeric is not that high. It's around 3%, by weight .

Most of the studies on this herb are using turmeric extracts that contain mostly curcumin itself, with dosages usually exceeding 1 gram per day.

It would be very difficult to reach these levels just using the turmeric spice in your foods.

One of the main drivers of this process is brain-derived neurotrophic factor (BDNF), which is a type of growth hormone that functions in your brain.

Curcumin may help reverse many steps in the heart disease process.

It helps in Depression, Increases memory.

(9)Omega 3 Fish Oil

All types Fish Contains Omega 3 Fatty Acids. Specially Sea Fish.

- **Lower blood pressure**

- **Reduce triglycerides**
- **Slow the development of plaque in the arteries**
- **Reduce the chance of abnormal heart rhythm**
- **Reduce the likelihood of heart attack and stroke**
- **Lessen the chance of sudden cardiac death in people with heart disease**

(10)Red Wine

This is the type of wine made from black grape varieties. But the colour of the wine may differ – ranging from intense violet to brick red and brown.

Red wine is made from grapes, and grapes are rich in several antioxidants. Some of these include catechins, resveratrol, epicatechin, and proanthocyanidins

I do not want to stress again, moderation is the key. And in no way do I want to promote alcohol.

Benefits

- 1. Boosts Heart Health**
- 2. Lowers Cholesterol Levels**
- 3. Helps Fight Diabetes I used to Prescribe in retinopathy,Nephropathy,Dementia,CAD,Blemishes skin.**
- 4.Fight Cancer**
- 5.Prevents Obesity**
- 6.Prevents High Blood Pressure and Stroke**
- 7.Promotes Lingeivity by Minimum 10 Years.Several reaserches shows that resveratrol in red wine can increase lifespan by as much as 60% .**
- 8.Reduces Stress Resveratrol again. This compound in red wine stimulates a particular protein that activates certain genes that repair DNA, suppresses the tumour genes, and promotes longevity genes.**
- 9.Improves Bone Strength**
- 10.Reduces risk of Cataract.**
- 11.Promotes Liver health: Modest wine consumption was not only found to be safe for the liver, but it could even cut the risk of non-alcoholic fatty liver disease**
- 12.Boost Memory 13.Fight Depression 14.Improves Sleep 15.Increases Lung Function**
- 16.Prevents tooth Decay 17.Boosts Omega 3 Fatty Acids 18. Strengthens The Immune System**
- 19.Fights Parkinsonism20. Slows Down Aging And Makes Skin Glow 21.Fights Acne 22.Treat Sunburn**
- 23.Promotes thick Hair 24.**

11.WALNUTS

Walnuts, or commonly referred as 'Akhrot'

Health Benefits

- 1. For The Heart: Due to the high levels of omega-3 fatty acids in the walnuts, they are very beneficial to the cardiovascular system**
- 2. Immunity**

Walnuts have high amounts of antioxidants in them that keep your immune system healthy and prevent the onset of diseases.

3. For Brain Health

4. Breast Cancer

The American Association For Cancer Research has published Walnuts can help reduce the risk of breast cancer.

5. Delays Skin Aging 6. Delay Bone decay. 7. Pregnancy 8. For Glowing Skin 9. Prevents Balding

****black walnut Should not be Used as it will damage Liver and Kidney.

12. Pomegranate

Pomegranates are among the healthiest fruits on Earth. They're so powerful that pomegranate juice has been found to have three times the antioxidant activity of red wine and Green Tea. It can reduce aging process.

13. Chilli

The chili pepper is the fruit of plants from the genus *Capsicum* which are members of the nightshade family.

Chili peppers also improve inflammation and reduce blood pressure and oxidative stress. Thus reduces aging Process.

14. Vitamin C

Causes cellular Improvement. Vitamin C can only increase the muscle and fat atrophy that shrivels our skin as we get older. It has got a tremendous anti-ageing property.

15. Calorie restriction (CR) by 30-40% that is 1000 to 1200 Kcal/Day

16. Ginseng is the root of plants in the genus *Panax*, such as Korean ginseng (*P. ginseng*), South China ginseng (*P. notoginseng*), and American ginseng (*P. quinquefolius*), typically characterized by the presence of ginsenosides and gintonin.

BENEFITS

- Potent Antioxidant That May Reduce Inflammation and aging.
- May Benefit Brain Function. ...
- Could Improve Erectile Dysfunction. ...
- May Boost the Immune System. ...
- May Have Potential Benefits Against Cancer. ...
- May Fight Tiredness and Increase Energy Levels. ...
- Could Lower Blood Sugar.

ANTIOXIDANTS REVERSES AGEING

Boost your intake of a variety of antioxidants with these healthy foods. The following is a list of different kinds of antioxidants and foods that are high.

- **Allium sulphur compounds:** **Leeks**, onions, garlic
- **Anthocyanins:** Eggplant, grapes, berries
- **Beta carotene:** Pumpkin, mangoes, apricots, carrots, spinach, parsley
- **Catechins:** Red wine, tea
- **Copper:** Seafood, lean meat, milk, nuts, legumes

- **Cryptoxanthins:** Red peppers, pumpkin, mangoes
- **Flavonoids:** Tea, green tea, red wine, citrus fruits, onion, apples
- **Indoles:** Cruciferous vegetables such as broccoli, cabbage, cauliflower
- **Lignans:** Sesame seeds, bran, whole grains, vegetables
- **Lutein:** Corn, leafy greens (such as spinach)
- **Lycopene:** Tomatoes, pink grapefruit, watermelon
- **Manganese:** Seafood, lean meat, milk, nuts
- **Polyphenols:** Thyme, oregano
- **Selenium:** Seafood, offal, lean meat, whole grains
- **Vitamin C:** Oranges, berries, kiwi fruit, mangoes, broccoli, spinach, peppers
- **Vitamin E:** Vegetable oils, nuts, avocados, seeds, whole grains
- **Zinc:** Seafood, lean meat, milk, nuts
- **Zoochemicals:** offal, fish

COMMONLY USED ANTIOXIDANTS ARE

1. Blueberries
2. Avocado
3. Pomegranates
4. Watermelon
5. Tomatoes
6. Figs
7. Strawberries
8. Lemons
9. Broccoli
10. Carrots
11. Red Cabbage
12. Spinach
13. Cucumber
14. Sweet Potatoes
15. Mushrooms
16. Brinjal
17. Green Tea
18. Red Wine
19. Almond
20. Turmeric
21. Garlic
22. Salmon fish
23. Olive Oil
24. Beans
25. Walnut
26. Yogurt
27. Oatmeal

FOOD THAT ENLARGE THE TELOMERE LENGTH

Longer Telomeres, Longer Life.

1. Flax also known as common flax or linseed, is a member of the genus *Linum* in the family Linaceae. 100-gram serving, flaxseed contains high levels (> 19% of the Daily Value, DV) of protein, dietary fiber, several B vitamins, and dietary minerals. Ten grams of flaxseed contains one gram of water-soluble fiber (which lowers blood cholesterol) and three grams of insoluble fiber (which helps prevent constipation).¹ Flax contains hundreds of times more **lignans** than other plant foods. Flaxseeds are especially rich in **thiamine**, **magnesium**, **potassium**, and **phosphorus** (DVs above 90%).

flax is a great source of omega-3s, which are important for both preventing inflammation and building cell membranes throughout the body. Research shows that omega-3s can prevent telomeres from shortening too quickly.

2. Spinach

Spinach is a leafy green flowering plant native to central and western Asia. Spinach contains 4% carbohydrates, 3% protein, and contains negligible fat. It is a rich source of vitamin A, vitamin C, vitamin K, magnesium, manganese, iron and folate (table). Spinach is a good source (10-19% of DV) of the B vitamins riboflavin and vitamin B₆, vitamin E, calcium, potassium, and dietary fiber.

Spinach increases several other top telomere-saving foods Besides being rich in fiber and antioxidants that protect telomeres, it tops the list of folate-providers. Folate is a B vitamin that's required for DNA synthesis, repair, and metabolism within the cell. Folate is also imperative to maintain low levels of homocysteine. High levels of

homocysteine can cause inflammation and damage our artery linings, which promotes heart disease. Other good sources of folate are broccoli, asparagus, Brussels sprouts, lentils and beans (soy, pinto, black, navy and kidney), as well as fortified cereal and whole grain products.

3.MUSHROOMS

Mushrooms are light and versatile fungi serve quality Vitamin D, which is associated with telomere length. Telomeres are the caps at the end of each chromosome strand that protect your DNA from unravelling or fraying. Generally, longer telomeres are associated with health and longevity. Extremely long telomeres, however, can make cancer cells immortal.

Foods Increase telomere Eat plenty of produce, try to include at various times citrus, berries, apples, plums, carrots, green leafy vegetables, tomatoes. There are also antioxidants in beans, nuts, seeds, whole grains, and green tea.

4.Blubberies

Research shows that those with higher levels of antioxidants such as Vitamin C, E and selenium tend to have longer telomeres. Fruits and vegetables are the best sources of antioxidants, which is why a plant-based diet is highly recommended. So don't stop at berries when seeking anti-oxidizing effects: carrots, sweet Potato, yams, winter squash and green leafy vegetables are packed with them. Tomatoes, citrus, cantaloupe and potatoes with skins provide plenty of Vitamin C. Soy, nuts, and seeds offer Vitamin E and whole grains provide selenium.

5. Oats

oatmeal offers an added boost of health-promoting fiber. Other ways to get your fiber: whole grains of various types, vegetables, fruit, beans and lentils. **add 1 1/2 tablespoons of chia to my morning oatmeal--about 3 grams can lengthen the telomere can increase lifespan.** put the milk, cinnamon and **oats** in a small pan and heat it take as food can increase your life Span.

(5)VLCD (Very Low calorie Diet): While 1,200 is the minimum level of calories that the average person can survive on without the body going into starvation mode and stay healthy .People who have a strenuous fitness routine or perform many daily activities need more **calories**. If you have reduced your **calorie intake** below 1,200 **calories** a day, you could be hurting your body in addition to your weight-loss plans.

Eat a lot less, live a lot longer, says I as a scientist who claims that consuming as little as 600 calories per day adds years to lifespan. If you want to add serious years to your life, you need to cut serious calories from your diet.

MY SLOGAN Eat a lot less, live a lot longer, says scientist

Experts yesterday revealed that anorexics are addicted to low-calorie food. They say it explains why those suffering from the eating disorder persistently opt for the wrong food, despite risking starvation. ... At her worst, she reduced her intake to just 800 calories a day — 1,200 less than the recommended daily amount.

As a general rule, people need a minimum of 1,200 calories daily to stay healthy.

(6) LYMPHATIC MASSAGE OF WHOLE BODY & GENITALS :

Lymphatic drainage is a gentle, rhythmical massage treatment performed by a specially trained lymphatic massage therapist to stimulate the circulation of lymph fluid around the body. This helps to rapidly speed up the removal of wastes and toxins from a sluggish lymphatic system.

BENEFITS:-

- lymphedema
- Diabetes
- fibromyalgia
- swelling or edema
- skin disorders
- fatigue
- insomnia
- stress
- digestive problems
- arthritis
- Irritable Bowel Syndrome (IBS)
- migraine episodes
- can benefit your sexual health(I USED TO ADVISE DIABETES WITH ED)
- Loss of Libido In Female
- Prostatic Massage can Reduce Chance of Prostate Cancer
- ****IT IS MY ADVICE FOR ALL DIABETES PATIENT TO HAVE REGULAR LYMPHATIC MASSAGE WHOLE BODY AND GENITALS. CONSULT ME REGARDING THE PROCESS PARTICULARLY SPA & MASSAGE CENTRE.**

SEX AND AGING:

Sex reduces aging process by releasing Anti-Aging hormone oxytocin and regular sex increases oestrogen stave off dryness and improves the elasticity. Over 70 years I used to give E-Drive C One tablet once daily for 3 months along with Himcolin ointment plus Olive oil over the both the testes,Squeging Mid testicular skin,Message to Glans by his wife or message therapist,then whole penis.For Ladies with olive oil message to Pubic area,whole Labia Majora,Clitoris and 1 inch of Vagina by a Female therapist.

HIFU TREATMENT & AGING:

A high intensity focused ultrasound facial, or HIFU facial for short, is a non-invasive treatment for facial aging. It uses ultrasound energy to encourage the production of collagen, which results in firmer skin. Several small clinical trials have found HIFU to be safe and effective for facial lifting and refining wrinkles. People were

able to see results in a few months after treatment, without the risks associated with surgery. The procedure is best suited for clients between the ages of 30 – 75 years, who have mild to moderate skin laxity or looseness, and who are looking to delay the skin's natural ageing process. HIFU stands for high intensity focused ultrasound and is an innovative, painless and non-invasive way to reduce wrinkles that can last up to two years and is skin-friendly.

High intensity focused ultrasound (HIFU) technology for vaginal rejuvenation can help women to restore the youthful elasticity and moisture of their vaginal walls, reducing uncomfortable symptoms and allowing them to feel like themselves once again. Results last between 18 months and 3 years with yearly top ups recommended. We advise that clients avoid sexual intercourse for at least 72 hours after the treatment and exercise for 24 hours. HIFU adds softer and thicker skin and more moisture both internally and externally. For those experiencing Vaginal/Vulvar Dryness or Atrophic Vaginitis, HIFU makes daily life and sexual intercourse more comfortable without the use of hormones.

SUMMARY

Science is Open the anti-aging secrets of telomeres—tiny segments of DNA that may help you live longer.

- Sufficient Water is Required for Elderly person at least 1.7Liters/Day If Left Untreated Dehydration can Quickly Cause Severe Problem Even the Death.
- GENE THERAPY IS RISKY & HAS GOT HIS LIMITATION.
- QUIT SMOKING. STOP ALCOHOL EXCEPT RED WINE THAT TOO 125ml/DAY.ZERO POLISHED RICE,ZERO OIL EXCEPT OLIVE OIL IS MY SLOGAN FOR LONG LIVE.
- MEDITATION,EXERCISES,YOGA IS AN ADJUVANT THERAPY FOR LONG LIVE.
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