

LABORATORY DIAGNOSIS FOR ANTI-AGING MEDICINE

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ABSTRACT

Aging is the common biological process for everyone. The anti-aging is the new emerging medical science focusing on how to slow the aging and degeneration process. Similar to any medical science, the laboratory investigation is the important approach for diagnosis and management in anti-aging medicine. In this short article, the author summarize and discuss on laboratory diagnosis for an anti-aging medicine.

KEYWORDS: Anti-Aging, Medicine, Laboratory, Diagnosis.

INTRODUCTION

Aging is the common biological process for everyone. The anti-aging is the new emerging medical science focusing on how to slow the aging and degeneration process. Similar to any medical science, the laboratory investigation is the important approach for diagnosis and management in anti-aging medicine. As noted by Maita, "Anti aging tests and labs can be useful for targeting what is aging us so we can take preventive measures to slow or even reverse the process [1]." In this short article, the author summarize and discuss on laboratory diagnosis for an anti-aging medicine.

IMPORTANT LABORATORY INVESTIGATIONS FOR ANTI-AGING MEDICINE

- Telomeres [2]: Telomere length is an important test in anti - aging medicine. This laboratory investigation can tell us how we are aging. Basically, telomeres are the tips at the end of the strands of DNA which will be shorter when ones we age. The shortening result in decreased activity of DNA for dividing which means the tissue will be no longer be repaired.

- Oxidation Test [3]: Oxidation is an important process that impact the cellular homeostasis and balance. With heavy oxidative status, ones will be early aged. There are several laboratory investigations which can indicate your levels of oxidation including 8-hydroxy deoxyguanosine (8-OHdG) [3], Omega 3 Index [4] and hemoglobin A1C (HbA1C) [5].
- Acid Alkaline Balance and Mineral Status Test [6]
- Acid alkaline balance and mineral status is the basic clinical biochemistry laboratory testing. In normal physiological condition, the body will maintain Acid alkaline balance and biomineral status. Aberration is observed when there is an aging process. The basic laboratory test can be by urine or blood samples.
- Endocrine Test [7]: The aberration of endocrine function is observed when there is an aging process. This is similar to the case of homeostasis for acid-alkaline status and mineral status. There are many impairments in many endocrine systems with aging.

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The loss of normal physiological function in any aspect of endocrine function can result in compensatory change in endocrine regulation. This can further result in alterations in hormone catabolism. Nevertheless, the clinical problem is usually non-specific, muted, or atypical symptoms. The common problems include hypogonadism, hypothyroidism, hyperthyroidism and alteration of adrenal cortex hormone. The complete endocrinology profile investigation will be useful in early diagnosis of aging. Also, it can help diagnose of the endocrine related malignancies.

CONCLUSION

Anti-aging medicine is a new medical science that the laboratory investigations play important roles. There are several available tests that practitioners should know and realize on the indications and usefulness.

CONFLICT OF INTEREST: None

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