Novelty Journals

ISSN 2394-7330

International Journal of Novel Research in Healthcare and Nursing
Vol. 11, Issue 2, pp: (56-60), Month: May - August 2024, Available at: www.noveltyjournals.com

Hemoglobin (heme) in body blood circulation is a function of earth electromagnetic for existing the life

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DOI: https://doi.org/10.5281/zenodo.11174613

Published Date: 10-May-2024

Abstract: **In this attempt study through blood circulation in human. Body blood consist hemoglobin which responsible for transfer oxygen(O2) from lungs to the body and carbon dioxide (CO2) from body to lungs through oxidation-reduction process during the respiratory chain which produce electricity as well as electromagnetic associate by bio magmatism (human bio field). Furthermore, represent earth magnetic field explanation, when related both of them bio magnetic with earth magnetic field as a base to explain human life role according to these Phenomena.**

Keywords: **Hemoglobin, Human magnetic field, earth magnetic field.**

INTRODUCTION

Hemoglobin is a very important in the living system to exhibit the life.

Hemoglobin heme responsible for carrying oxygen and carbon dioxide transfer between lungs and the body cells to great energy during this process and nutrient hormones to liver and kidney during the electron movement through oxidation-reduction process during respiratory chain.

The electromagnetic associated with this operation. The motion of particles in earth atmosphere will great magnetic field, so there are two magnetic field and that great in human body.

The new approach in this study is assuming they are relation between these two types of magnetic field may be reach to balance in ordinary case (normal) leading any living system to be in a life exist and any change in magnetic field in human cause death**.** [(1-15)]

1.1-Acytochrom

Is a protein involved in electron transfer that contains a heme groups. This groups alternate between ferrous(Fe^{+2}) and ferric(Fe^{+3}) state during the electron-transferring[(1)]

Hemoglobin is a protein in red blood cells (RBC) that carries oxygen. The hemoglobin test measures how mach hemoglobin is in blood. It is composed of a protein call heme which binds oxygen in lungs, oxygen is exchanged for carbon dioxide (respiratory gases.).

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The respiratory chain [1].

The net reaction catalized bu complex 1V. is.

QH2 +2Fe^{+3}(cyt.c.)--complex111------- Q +2 Fe^{+2} (cyt.c) +2H^{+} E=0.45V

Reduce cyt.c

2Fe^{+2}(cyt.c) +2H^{+} +1/2 O2------Complex.1V---- 2Fe^{+3}(cyt.c)+H_2O E=0.815 V

Q-ubiquinone ,complex.111(Q-cytochrome oxidoreductase) and complex.1V-(cyt.c oxidase).

The amount of hemoglobin in whole blood is expressed in grams perdeciliter g/dciliter (g/dl)..

The normal level for males is 14-18 g/dl and for females is 12-16 g/dl.

About 70% of body iron is found in the red blood cells myoglobin.[2]

When the hemoglobin level is low, patient complain from anemia.[3] which can cause tirdness, weakness and shortenss of breath.

High hemoglobin levels can leads to clot,heart attacks snd stroke.chronic kidney disease cause low hemoglobin (HB) level also poor diet cause anemia . Anemia threaten to death less than 6.5 g/dl.

1.2- The main function of the circulatiory system

The circulatory system is made up of heart and blood vessel working together.The role of circulatiory system is to move nutrients, hormons, oxygen, muscles and tissues to use for energy growth and repair.[4]

1.3- Heart electricity

The heart's pumping action is regulated by electrical conduction system that coordinates the contraction of Various chambers of heart.[5]

An electrical stimulus is generated by the sinus nods.

This is a small of specialized tissue located ln the right upper chamber atria of heart. This generates the electricity 60-100 times per minute under normal condition.

2.1- Mechanic of heart

There are 2 phases to heart pumping cycle.

Systole- This when heart contracts pushing blood out of the chambers.

Diastole- This is the period between contractions when the muscle of heart. (myocardism) relax and the chambers fill with blood.[6]

2.2- Brain work

The brainstem link the brain to the spinal cord. It control functions visal to life ,such as a heart, blood pressure that breathing function of brain controls through, memory skill, Vision, breathing temperature, hunger and every process that regulates our body. The percentage of iron in brain, the total iron levels in healthy subjects has been to vary from 122 µg/L- 28 µg /L.[7,8]

3. Earth magnetic field

The magnetic field that extends from earth's interior out into space, where it interacts with the solar wind, a stream of charge particles emanating frim the sun [9]

Magnetic is produced whenever an electric charge is in motion the spinning and orbiting of the nucleus of sun storm produces a magnetic field as dose electrical current following through a wire. [10]

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Magnetic field formula: -

$H=B/\mu - M$ ....(1)

Where:

H is magnetic field strength.

B is magnetic flux density which measure of the actual magnetic field within material(induction).

μ is magnetic permeability(electromagnetism) is ability of material to permit the passes of magnetic lines of force through it. And

M is magnetization is due to motion of electric charge. [11]

$M=Nm/V$ .....(2)

Where

N is quantity of magnetic moment.

m is direction and V is volume of sample. [11]

4.1-Human body magnetism

Was greated by weak ionic current in human body magnetic materials in human brains suggesting that the brains may contain more magnetic material in lower and older areas. [13] All objects including human bodies, emit electromagnetic radiation. [13]

4.2-Magnetic field around human body

The passage of electric signals throughout the human body produces an electromagnetic field, known as humanbiofield.[13]

Electricity and magnetic relativity is the bridge, because the moving charges(usually electron)whose interaction give rise to many of magnetic forces familiar to us have speeds for smaller time c, it is not obvious that the operation of an electric motor say, is bases less implausible however, when we reflect on the strength of electric force.

The electric attraction between electron and proton in a hydrogen atom, for instance is 10^{23} times greater than the gravitational attraction between them. Thus even a small change in the cheracter of these forces due to relative motion which id that magnetic forces represent, may hav large consaquences.[13]

CONCLUSION

1. Acording toeq.1 and eq .2. If we are assume that,

H(e)- earth magnetic field.

H(b)- human body magnetic field.

Therefore,

$H(e)=(B/\mu - M)e$ .....(3)

$H(b)=(B/\mu - M)b$....(4)

And

If $H(e)=(B/\mu -M)e$

is invariable (sea level).

Therefore,

$H(b)=(B/\mu - M)b$ is variable.

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At equilibrium new approach will be taken,

Earth magnetic field = human body magnetic field.

I.e , H(e) =H(b) ...(5)

at normal state.

But, H(e) ≠ H(b)... (6) Abnormal state.

H(e) nearly invariable.

H(b) change, (higher of lower value)

It depend on (B,μ and M) values change.

Case-1

In H(b) if M consider to be invariable, mu will be variable.

When , μ >1, B will be decrease, H(b) decrease.

And where μ <1, B will be increase, H(b) increase.

Therefore the ranges value of hemoglobin(HB) are..

H(b) ≥6.5 g/dl (HB).

H(b) ≤ 18 g/dl (HB).

This limit value 18≤H(b)≥6.5 the range of life.

Case.2

If μ invariable,

M will be variable.

This also lead to not exceed the limitation, in case.1.

2.our suggestion is to find a way to keep human hemoglobin in a sutable range to continue life in order to extend age for live life.

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