

4.1 Discussion:

Pregnancy is characterized by extensive maternal physiological adjustments involving a variety of metabolic processes. These characteristic changes are often reflecting in the results of laboratory tests, such that value in healthy pregnant women may fall outside the normal ranges of the non- pregnant women. Failure to appreciate the effects of normal gestation can result in errors in diagnosis.

Considerable evidence indicates that Total protein: is composed of amino acids that are joined to form linear chains .In addition to carbon, hydrogen, and oxygen, proteins contain approximately 16% nitrogen by weight. The digestive process breaks down proteins to their constituent amino acids, which enter the blood.

Albumin: is the major plasma protein, in human plasma is made of 585 amino acids linked in sequence, one of the major roles of albumin (along with total protein) is the part of plays in osmotic or oncotic pressure is simply measure of the number of particles that are in a specific volume.

Blood urea: Urea forms in the liver and, along with CO₂, constitute the final product of protein metabolism. The amount of excreted urea varies directly with dietary protein intake, increased excretion in fever, diabetes, and increased adrenal gland activity.

This is case control study, conducted in AlTurki Hospital located in Khartoum state, during period from March to September 2015.

A total of 70 subjects individual were enrolled in this study, 60 pregnant women's and 10 non pregnant ladies as control group.

In this study there was significant decrease in the mean plasma of total protein levels of pregnant women when compared with non pregnant ladies P.value (0.02). The present study findings confirmed by previous study done by (Marnye,1994) who reported that there was a significant difference between the mean of plasma total protein levels in pregnant women when compared with control group.

In addition the present study showed significant difference between trimesters in total protein levels when compared first with second and third P.value (0.00), and no significant difference between second with third P.value (0.07).

In this study there was significant decrease in the mean plasma of albumin levels of pregnant women when compared with non pregnant ladies P.value (0.00). The present study findings confirmed by previous study done by (Ann Med Health 2012) who reported that there was a significant difference between the mean of plasma Albumin levels in pregnant women when compared with control group.

In addition the present study showed significant difference between trimesters in albumin levels when compared first & second with third P.value (0.00), and no significant difference between first with second P.value (0.27).

In this study there was significant decrease in the mean plasma of blood urea levels of pregnant women when compared with non pregnant ladies P.value (0.01). The present study findings confirmed by previous study done by (American 2000) who reported that there was a significant difference between the mean of plasma blood urea levels in pregnant women when compared with control group.

In addition the present study showed significant difference between trimesters in blood urea levels when compared first with second and third P.value (0.00), and no significant difference between second and third P.value (0.56).

4.2 Conclusion:

- In conclusion, plasma total Protein levels is significantly decrease in pregnant women when compared with control groups.
- plasma levels of Albumin significantly decrease in pregnant women when compared with control groups.
- Blood Urea levels is significantly decrease in pregnant women when compared with control groups.

4.3Recommendation:

- In pregnancy careful to the diet must be follow up to avoid the complication of pregnancy.
- Total protein and Albumin should be assessed regularly during pregnancy.
- Blood Urea should be assessed regularly during pregnancy.