

SUMMARY AND CONCLUSION

This work has been done to study serum s. a. in diabetic patients and to shed light on its relation with retinopathy and nephropathy. 47 persons constituted the subjects of this study:

***Group 1** : (IDDM) included 32 patients which were subdivided into two subgroups:

Subgroup A: IDDM without complications included 23 patients

Subgroup b: IDDM with complications included 9 patients.

***Group II** : 15 normal healthy children.

The following was performed for every patient:

(A) Thorough history and clinical examination with stress on the following:-

- 1-Duration of D.M.
- 2-Manifestations of diabetic nephropathy.
- 3- Fundus examination for retinopathy.

(B) laboratory investigations:

- 1-Urine analysis with stress on microalbuminuria.
- 2-Fasting blood glucose level.
- 3-Glycated haemoglobin.
- 4-Serum creatinine
- 5- Serum cholesterol.
- 6-Serum sialic acid.

The results obtained were as follows: -

- 1- Microalbuminuria was manifested in some cases as indications of nephropathy as well as fundus examination to reveal diabetic

retinopathy.

2- Serum fasting blood glucose was significantly increased in diabetics patients than in control group.

3- Serum sialic acid was increased in diabetics than in control group.

4-Serum fasting blood glucose, creatinine , HBA1C, cholesterol , sialic acid were significantly increase in diabetics with complications than in diabetics without complications

5-Serum sialic acid showed a significant positive correlation with fasting blood glucose , HBA1C , creatinine , Cholesterol.

Conclusion

This study concluded that serum sialic acid was increased in diabetic patients & markedly increased in diabetics with complications. This reflects generalized endothelial cell dysfunction or macro vascular disease , either through loss of sialic acid containing glycoproteins from vascular cells into blood stream or through decreased renal function which may impair excretion of s.a. containing glyco conjugates.

So , s.a. can used as a marker in diabetic patients particularly with retinopathy & nephropathy.