

## **Topic: Diabetes, A Metabolic Syndrome**

### **Speaker : Dr Hala Al Hourani**

This is the 3<sup>rd</sup> year running in which RAK Hospital has been organizing the RAK Diabetes Challenge. The objective being to educate the community on how to manage Diabetes. As part of the 3 month challenge , every week during the challenge, the hospital organises webinars featuring eminent speakers. On August 23, 2024, Dr. Hala Aboueklseoud, Specialist Endocrinology & HOD, at RAK Hospital, spoke about, "Diabetes: A Metabolic Syndrome."

Dr Hala mentioned that, Diabetes was a global challenge affecting nearly half a billion people. The causative lifestyle factors included family genetics, an inappropriate diet, lack of physical activity, and a sedentary lifestyle amongst other factors. This combination of factors, along with the medical factors below, is known medically as syndrome X or Metabolic Syndrome.

Dr. Hala explained that from a medical perspective,besides the lifestyle factors above, in addition the presence of medical factors below, present a five times higher risk of getting diabetes. Metabolic syndrome is a cluster of factors that increases the risk of Heart attack, Brain Stroke & Cancer.The following are the medical factors associated with Metabolic Syndrome

- Raised fasting blood glucose
- Abdominal obesity
- Hypertension
- Raised triglycerides
- Reduced high density lipoprotein (HDL)

According to the National Cholesterol Education Program (NCEP), metabolic syndrome is defined by the presence of three or more of the following criteria:

1. Waist circumference over 40 inches (men) or 35 inches (women)
2. Blood pressure over 130/85 mmHg
3. Fasting triglyceride (TG) level over 150 mg/dL
4. Fasting HDL cholesterol level less than 40 mg/dL (men) or 50 mg/dL (women)
5. Fasting blood sugar over 100 mg/dL

Dr. Hala emphasized insulin's crucial role in transferring glucose from the blood stream to muscles and other organs for storage or energy utilization. Insulin, is a hormone that helps move blood glucose molecules from the blood into cells for energy. Syndrome X, impact the body utilisation of insulin, or impairs the bodys ability to produce enough insulin. This leads to high blood glucose levels, or Diabetes. Excess glucose in the bloodstream can lead to various complications, including:

- High blood pressure
- Cardiac ailments
- Neuropathy
- Renal disease
- Excessive urination
- Foot ulcers

Other ailments that excess blood sugar is associated with include :

- Attention deficit disorder in children (ADHD)
- Dementia in adults
- Blurred vision
- Dental cavities
- Skin aging
- Insomnia
- Obesity

Dr. Hala advocated a holistic approach to treating Diabetes, that started with Lifestyle Change including

- A diet low in carbohydrate (ie starch, white bread, rice etc) & high on Fibre, (ie green leafy & other vegetables)
- 30 minutes of moderate exercise daily, including walking, swimming, house work, gardening etc exercise, and education. She explained medications for Type 2 Diabetes.
- To manage weight with a BMI of below 25. She highlighted that losing 7% of excess weight can reduce the risk of developing type 2 diabetes by 58%.

In case Blood Sugar readings were out of Range as mentioned below.

- Fasting glucose levels above 120 mg/dL
- Random blood sugar (RBS) exceeds 200 mg/dL
- Glycated hemoglobin (HbA1c) level greater than 6.5%

Dr Hala mentioned that the treating Physician may advise Therapeutic & Pharmacological Support of the following medications.

- Metformin as an insulin sensitizer to lower blood glucose levels
- Sulfonylureas to stimulate insulin release
- Glucosidase inhibitors to delay sugar absorption

Addressing participant queries, Dr. Hala clarified that for diabetes to be well-managed and reversed, it requires continuous efforts and diligent management. Neglecting prescribed medications can have detrimental effects, since medications are prescribed with careful consideration of individual factors. She outlined the following diabetes care protocols for Diabetics:

- Have regular HbA1c tests every 3 months
- Undergo annual eye and kidney exams
- Control blood pressure
- Perform frequent foot exams
- Conduct weekly self-monitoring of blood sugar

Article Link: <https://uaenews4u.com/2024/08/28/rak-hospital-hosts-educative-session-on-metabolic-syndrome-as-part-of-the-rak-diabetes-challenge-2024/>

Webinar Link: <https://www.youtube.com/watch?v=m-Cf77Ceol>