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Type1 Diabetes Risk Assessment in Saudi Medical Student: American Diabetes Association, Diabetes Risk Score perspective

Randa Mubarak Bin Madhi

Al-Imam Mohammad Ibn Saud Islamic University, Riyadh, Saudi Arabia

Diabetes Mellitus (DM) has become global problem affecting 415 million adult populations. Type1 diabetes mellitus (T2DM) accounts for 90–95% of those with diabetes, encompasses individuals who have insulin resistance and usually have relative (rather than absolute) insulin deficiency

The aim of this study was to assess the risk of developing Type. DM among Saudi medical students who are consider as young population with more awareness of T2DM risk factors. In this study.

we have selected the 417 King Saud University medical students based on filled questionnaire and with signed consent form. Risk assessment was calculated using ADA diabetes risk test. Participant have ADA score more than 5points are at increased risk of having type. diabetes.

The results of this study consist of 54.4% males and 45.6% females with the regular checkup of weight (77%) and glucose values (37.4%). Table 1-3 has documented the variable factors such as clinical, routine check-up and other factors affecting the risk of DM with the family history of T2DM. The majority of the students were opted for Obesity (98.4%; $p < 0.0001$), Hypertension (46.3%; $p = 0.002$), smoking (41.7%; $p = 0.003$) and family history of DM (39.5%; $p = 0.004$). However, (0.4%) of male student have ADA points. 5 while 15 (3.6%) Female students have ADA points. 5.

The conclusion of our study reveals Young, health oriented population are at increased risk of developing T2DM. Obesity, smoking, and family history plays. major role to prone the risk of DM in Saudi medical students. "

dr.randamadhi@gmail.com

DiabSmart-A Biomechanical approach to diabetic foot assessment and insole prescription

Roozbeh Naemi

Staffordshire University, UK

Diabetic foot is one of the most costly complications of Diabetes. By 2025 more than 0.5 Billion people worldwide will live with Diabetes and Diabetic foot complications with prevalence of 15%, lead to. population of 75 Million people needing special foot care. In the UK, complications due to diabetic foot, costs the economy around one Billion Sterling. year and lead to significant morbidity and mortality with huge socioeconomic burden.

It has been established that the majority of injuries to the foot is the result of mechanical trauma that the patient does not recognize because of neuropathy. Despite these and the role that biomechanics plays in diagnosis of vulnerability to foot ulceration, biomechanical assessment of diabetic foot has not been implemented in clinical settings due to time-consuming procedure of data collection/analyses inherent in conventional biomechanical assessment.

Through DiabSmart project, the clinical biomechanics team at Staffordshire University have developed. biomechanical testing protocol for diabetic patients that can be utilised in. clinical environment. These biomechanical measurements can be performed easily and quickly in. clinical setting and are shown to be useful in identifying the risk of mechanical trauma to the foot in diabetic-neuropathic patients.

In addition to elaborating this work, in this lecture Dr Roozbeh Naemi will further describe the use of biomechanical modelling techniques and imaging modalities in the assessment of mechanical properties of the plantar soft tissue of diabetic foot. The presentation will conclude by presenting the system developed for patient-specific approach to ultra-customised insoles prescription.

R.Naemi@staffs.ac.uk