analysisInstruments used for analyzing the samples that are availability at JNU hospital.
Statistical Analysis: Statistical analysis will be performed by using SPSS software, student 't' tests, and Pearson's correlation; if the P* value < 0.005, then it will considered to be statistically significant. **Conclusion:** Thyroid disease and diabetes are two intertwined conditions. If you have a thyroid condition, you're at an increased risk for developing diabetes, and if you have diabetes, you're at an increased risk for thyroid disease.

Diabetes Mellitus and Glucose Metabolism

DIABETES COMPLICATIONS AND COMORBIDITIES

Treatment of Diabetic Wounds With Photodynamic Therapy - Preliminary Results

Mariana Berbert, Medical Student, Sicilia Arruda, Medical Student, Camila Bichuetti, MD, Alice Campos, Medical Student, Patricia Ceron, PhD, Fernanda Magalhães, PhD, Fernanda Moraes, PhD, Ana Claudia Pelegrinelli, PhD, Pamella Silva, MD, Vitoria Simone, Medical Student, Geraldo Thedei Jr., PhD.
UNIVERSIDADE DE UBERABA, Uberaba, Brazil.

Diabetic patients have greater susceptibility to developing diabetic foot ulcers (DFU), which associated with peripheral arterial disease and/or infection, causes greater difficulty in the healing process. Photodynamic therapy (PDT) presents itself as a promising alternative for ulcer healing. This study aims to analyze the effectiveness and benefits of PDT in the treatment of diabetic wounds, associating the presence of arteriopathy, the size of the lesion, the presence and type of infection and the need for amputation. After the approval of the ethics committee in research and signing of the TCLE, six patients with eight diabetic wounds were evaluated. The study was carried out in an outpatient clinic of a medium complexity hospital in the interior of Minas Gerais, Brazil, with frequency of two weekly meetings, for a period of 5 months. Cultures were collected at the beginning and end of treatment, arterial doppler of the affected lower limb was performed. The photosensitizer used was methylene blue, with subsequent emission of LED light at a power of 100 mW/cm2, for 10 minutes. The data were analyzed by the Qui2 test, using the Software SPSS 25.0, with a significance level of 5% and are described with mean ± EPM. Age was 65.50 ± 7.58 years, 50% male. All had type 2 diabetes mellitus and the disease time was 9.50 ± 8.22 years. Five reported the presence of comorbidities such as SAH and dyslipidemia, and two presented concomitantly nephropathy and retinopathy. One patient was a smoker and two reported previous smoking. All lesions presented grade I classification by Texas classification (superficial cleft not involving tendon, capsule or bone). Five stage B ulcers (infection only), two stage C ulcers (ischemia only) and A stage D ulcer (infection and ischemia). At US arterial doppler, three patients had total viability of the affected limb and three presented arteriopathy, but only two with collateral. There was no association between arteriopathy and injury reduction (p=0.109). The mean area of injury was 11.15 ± 14.93 cm2. There was a reduction of 46.51 ± 31.10%. There was no association between injury area and percentage of reduction (p = 0.213), but there is a tendency for greater reductions in smaller lesions. Infection was present in 75% of the lesions. There was no association between the presence of infection and reduction of lesions (p=0.446). So far, we can conclude that the presence of arteriopathy without collateral, makes the procedure impossible. There was no association with the presence of infection and reduction of the lesion, and can also be used as a stimulator of the healing process. There was no association with wound size and percentage of reduction. It's a promising therapy that should be better analyzed.

Diabetes Mellitus and Glucose Metabolism

DIABETES COMPLICATIONS AND COMORBIDITIES

Trends in Cardiovascular Risk in the United States 1999 - 2018

Hang Long Li, BSc, Bernard MY Cheung, PhD.
Department of Medicine, The University of Hong Kong, Hong Kong, Hong Kong.

Introduction: As guidelines evolve, lifestyle changes and new drugs are introduced, the long-term trends in cardiovascular risk in the general population are of interest. We evaluated the AHA-ACC-ASCVD risk score (ASCVD-RS) in the US population in the last 20 years.
Methods: Participants in the National Health and Nutrition Examination Survey (NHANES) 1999–2018 aged 40–79 years were included. Pregnant participants and those with missing relevant laboratory/self-reported data were excluded. Temporal trends in ASCVD-RS and its components, and the proportions of participants at high risk (score ≥10%) were characterized using linear regression, adjusted for age, sex, and ethnicity. Data analysis was performed using the R statistical package "survey" (version 3.6.3).
Results: Altogether 12744 NHANES participants (mean age 56.4 years; 55.9% male) were analyzed. From 1999–2018, the proportion of people with diabetes and taking antihypertensives increased significantly (both p<0.001), while total cholesterol level decreased significantly (p<0.001). Levels of high-density lipoprotein-cholesterol (HDL), and the proportion of smokers and individuals with systolic blood pressure ≥120mmHg remained static. The mean ± standard error of ASCVD-RS significantly increased from 11.4±0.7% in 1999–2000 to 12.5±0.5% in 2017–2018 (p=0.014), and the proportion of high-risk participants increased from 39.1% to 44.1% (p=0.020).
Conclusions: Cardiovascular risk in the US population increased slightly in the past 20 years. Despite the increased treatment rate of hypertension and the decrease in total cholesterol, the prevalence of diabetes doubled. More effort should be directed at preventing diabetes through weight control and regular physical activity.