**Results and discussion.** Despite preventive treatments including Proton Pump Inhibitors (Esomeprazole) H2 Receptor Blockers (Ranitidine) and Antacids (Almagel A) all patients developed esophagitis up to some extent. Esomeprazole was administered together with Almagel A for patients with RTOG grade 1, 2 and 3. For RTOG grade 3 patients, Ranitidine, Almagel A and Local analgesic (Lidocaine) were administered intravenously and as oral suspensions respectively.

International studies have revealed various pharmacological agents for prevention and treatment of radio-induced esophagitis. Study from Japan explored that Polapreznic combined with Sodium Alginate and Aluminium-Magnesium Hydroxide have significantly reduced the progression of grade 2 or higher esophagitis according to (CTCAE) grading. In Canada, a research of Amifostine and Glutamine has been proven to be effective in prevention of progression of esophagitis in some patients. Similar study of Spain also demonstrated the efficacy of Glutamine upon radio-induced esophagitis. According to China, upon treatment with Granulocyte-Macrophage Colony Stimulating Factor (GM-CSF) patients improved to grade 1 and 2 from grade 3 esophagitis and total effectiveness revealed as 90.32%.

Additionally, herbal medications like Baimudan root and Epigallocatechin-3-gallate (EGCG) from green tea have been studied to reduce esophagitis during and after treatment, acting as an alternative to conventional treatments.

For pain management during the procedure, Topical Analgesics like oral viscous Lidocaine for mild and moderate pain and Opioid analgesics like Morphine is used intravenously or subcutaneously for severe pain.

**Conclusion.** Despite using Proton Pump Inhibitors and antacids from the start of radiotherapy, all patients developed varying degrees of esophagitis. With central tumors experienced in more severe cases, and symptoms worsened with comorbidities like atelectasis. Esophagitis typically began after a median dose of 18-21 Gy. Although no single treatment is universally effective, studies on agents like Glutamine, GM-CSF, and Polaprezinc together with Analgesics and some Herbal medicine show promise in reducing the severity of esophagitis.

# ASSESSING DIABETES RISK FACTORS AMONG SRI LANKAN STUDENTS IN GRODNO STATE MEDICAL UNIVERSITY, BELARUS: INSIGHTS FROM A SURVEY STUDY

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**Introduction.** Diabetes Mellitus (DM) is a state of hyperglycemia in either fasting or postprandial states. In 2011, the International Diabetes Federation (IDF) estimated an overall prevalence of DM at 366 million; projecting 552

million by 2030. DM has proven a significant public health challenge worldwide, with increasing prevalence particularly noted in developing countries. Developing targeted interventions that promote healthy lifestyles which reduce the burden of diabetes, requires knowledge of its risk factors.

**Aim of the study.** As an increasing incidence has been recorded among Sri Lankan youth, this study assesses the prevalence of diabetes risk factors among Sri Lankan students studying at the Grodno State Medical University in Belarus; evaluating key factors including age, Body Mass Index (BMI), lifestyle (physical activity levels and unhealthy habits), diets, underlying health conditions and family histories, thereby providing valuable insights to develop targeted health interventions and enhance awareness and prevention strategies within this population.

**Materials and methods.** 245 participants aged 18-29 completed a structured questionnaire assessing diabetes risk factors. The survey was distributed electronically via Google Forms, ensuring convenience, and informed consent was obtained beforehand to maintain ethical standards. The study recorded age and calculated BMI to classify participants as underweight, normal weight, overweight or obese. Physical activity was evaluated according to the World Health Organization's 2020 guidelines on physical activity and sedentary behavior. Smoking, alcohol consumption, and dietary patterns were also assessed. Pre-existing health conditions and family history of diabetes were also considered. Descriptive statistics were used to summarize participant demographics and the prevalence of risk factors.

**Results and discussion.** The study population predominantly comprised females (68.1%) and males (the remaining 31.9%). In terms of BMI, 62.86% of students were classified as normal weight, 13.06% underweight, 19.59% overweight and 4.49% obese. Physical activity levels varied, with 20.3% identified as sedentary, 43.8% engaging in moderate activity, 12.4% participating in vigorous exercise, and 23.5% using a combination of activity levels. Health conditions among the participants included 1.63% (4) with high blood pressure, 4.48% (11) with sleep disorders and 5.3% (13) with hormonal disorders. Smoking or vaping was recorded at 9.2%, while alcohol consumption was a staggering 73.7%. Among drinkers, 10.2% did so weekly, 16.3% monthly, and 72.4% reported drinking rarely. Regarding dietary habits, 93.6% reported no dietary restrictions. Fruit and vegetable consumption however, was infrequent, with 21.5% rarely consuming them, 61.8% sometimes, 14.7% often, and only 2% very often. Sugary food intake varied, with 17.9% rarely consuming them, 45.4% occasionally, 25.5% regularly, and 11.2% daily. Whole grains were more commonly eaten, with 53.4% consuming daily, while 3.6% consumed rarely. Meal frequency indicated that 55.8% had fewer than three meals a day, 40.2% had three meals, 3.2% had four to five meals, and only 0.8% reported more than five meals. Snacking habits varied as well, with 35.9% rarely snacking, 40.2% occasionally, 16.3% regularly and 7.6% daily.

Additionally, 59% of participants reported a family history of diabetes, while 35.5% did not and 5.6% were unsure. Among those with a family history,

80.7% had relatives with type 2 and 15.3% with type 1 diabetes. Furthermore, 51.4% reported a family history of hypertension or high cholesterol, but only five individuals indicated that family members had undergone genetic testing for diabetes.

**Conclusion.** In conclusion, a considerable proportion of students present multiple risk factors associated with diabetes. While the presence of these risk factors does not imply an inevitable progression to diabetes, it underscores the importance of increased awareness and proactive health management among the student population.

# DECODING MULTIPLE MYELOMA: A RETROSPECTIVE CASE STUDY

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**Introduction.** Multiple myeloma (MM) is a malignancy of hematological origin characterized by the clonal proliferation of cancerous plasma cells in the bone marrow. It presents with a constellation of symptoms and laboratory abnormalities, including anemia, renal dysfunction, hypercalcemia, and bone lesions (CRAB criteria).

This case report highlights the diagnostic challenges and complexities in managing a 66-year-old female patient with multiple comorbidities including Chronic Kidney Disease (CKD) stage 2, Type 2 Diabetes Mellitus (DM) and Arterial hypertension, complicated by nephropathy, anemia, and elevated Erythrocyte Sedimentation Rate (ESR), ultimately diagnosed with MM.

**Aim of the study.** This study is unique due to the atypical presentation of MM in a patient with well-controlled diabetes mellitus and CKD, emphasizing the diagnostic dilemmas met in distinguishing MM-related kidney damage from diabetic nephropathy. Such cases showcasing the coexistence of MM and preexisting CKD are rare, underscoring the need for thorough investigation of symptoms in patients with overlapping chronic conditions.

**Materials and methods.** A 66-year-old woman with CKD stage 2 was admitted with complaints of lower extremity edema constant for about 1.5 months, fatigue, exertional dyspnea and significant fluctuations in her laboratory markers. These fluctuations started 1 year ago and were treated on an outpatient basis. The patient has a history of Type 2 Diabetes Mellitus, Arterial Hypertension. The patient has no relevant psychosocial or family history for oncological diseases.

After evaluating the patient, pitting edema of the shins was noted. The rest of the examination revealed no noteworthy findings. Fluctuated laboratory