Healthcare professionals who serve in roles involving diabetes care and glycemic management were invited to participate in an online survey. To qualify, an initial question that read: *"Where do you work?"* had to be answered *"hospital or health system with focus on inpatients"* (those who answered *"physician's office or clinic with focus on outpatients"* were disqualified). There were a total of 619 respondents from 408 U.S. hospitals.
KEY RESULTS
• The consensus among respondents is that fear of hypoglycemia has a strong influence on the prescribing of insulin (i.e., causes non-prescribing or lack of intensification following hyperglycemia). On a scale of 1 to 5, with 1 being 'very little if any influence' and 5 being 'considerable influence,' the average weighted score was 3.45.
• About 70% of respondents are of the opinion glycemic control is 'extremely important' or 'very important' to nurses and physicians, whereas about 48% believe this to be true of senior clinical executives and 25% believe this to be true of non-clinical senior executives.
• Only 24% of respondents maintain their hospital uses primarily basal bolus for subcutaneous insulin therapy. Close to 34% maintain their hospital uses primarily sliding scale and 42% maintain their hospital uses sliding scale and basal bolus equally as often. The top three barriers to full adoption of basal bolus insulin are: (1) inadequate prescriber knowledge about basal-bolus-correction regimens, (2) beliefs that sliding scale is acceptable practice and not harmful, and (3) difficulties coordinating glucose monitoring, insulin administration and meal delivery.
• Slightly more than 2/3 of respondents work at a hospital that routinely tracks and reports the rate of hypoglycemia (on a monthly or quarterly basis). Of those, 54% use a threshold of 60 and/or 70 mg/dL exclusively, which encompasses all episodes of hypoglycemia without accounting for severity; only 24% use thresholds of 60 and/or 70 mg/dL as well as thresholds of 40, 50 and/or 54 mg/dL, allowing episodes of greater severity to be isolated for analysis and quality improvement.
CONCLUSION
Results of the survey indicate better care, specifically better glycemic control, is needed for hospitalized patients with diabetes. With the shift from volume to value and a stronger focus on quality and safety, this data should be catalyst for making glycemic control a strategic imperative.

Thyroid

THYROID DISORDERS CASE REPORTS II

An Atypical Presentation of Severe Hypothyroidism, a Case of Large Posterior Pericardial Effusion Without Hemodynamic Compromise

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SAT-472

BACKGROUND We are reporting a case of a Hispanic female who presented with a pericardial effusion as a complication of hypothyroidism, untreated due to lack of medical care, which demonstrates health disparities in chronic diseases. CLINICAL CASE The patient is a 48 year-old Hispanic female with PMHx of hypothyroidism, noncompliant with medical therapy, who presented to the ED with fatigue and dyspnea. Despite progressively worsening symptoms for the past 4 months, she had refused to be seen by a physician because she was uninsured. Her physical exam was notable for generalized pallor and bradycardia, with otherwise normal cardiopulmonary exam. Her initial laboratory data showed hemoglobin of 5.5 g/dl. CXR demonstrated an enlarged cardiac silhouette, which on CT was found to represent a large pericardial effusion. On admission her laboratory data demonstrated low ferritin, TSH of 94 mIU/L and T4 of 1.4 mcg/dl. m. Cortisol was 9 mcg/dl at 11 am. Repeat hemoglobin post-transfusion was 9 g/dl The patient was started on IV levothyroxine and hydrocortisone. Echocardiogram showed a large posterior wall pericardial effusion without evidence of RV strain. Pericardiocentesis was attempted but was unsuccessful because of difficult access to the fluid location. She was discharged on levothyroxine 88mcg QD and recommended to follow up with endocrinology and cardiology as an outpatient. It is well known that the United States spends a disproportionate amount of money in healthcare in comparison to developing countries (1). Underinvestment in social services and high prices set by pharmaceutical companies are likely contributing factors (1). Unfortunately, the resulting outcomes do not necessarily reflect the spending. Minorities are well known to have a higher morbidity and mortality as well as to present more frequently with dramatic manifestations of chronic diseases. This can often be attributed to a lack of access to medical care and poor follow up. Our patient was diagnosed with pericardial effusion as a complication of untreated hypothyroidism, a condition that is underdiagnosed despite a high incidence (3-37%). This pericardial effusion was initially concerning due to its large volume. The fact that she was hemodynamically stable reflects its chronicity, but it could have led to a fatal complication if she continued without appropriate therapy for a longer period of time. CONCLUSION A case such as this should make us question what more we can do to improve healthcare outcomes for minorities in the USA. REFERENCES (1). Papanicolas, Irene, Liana R. Woskie, and Ashish K. Jha. "Health care spending in the United States and other high-income countries." *Jama* 319.10 (2018): 1024-1039.

Tumor Biology

TUMOR BIOLOGY: DIAGNOSTICS, THERAPIES, ENDOCRINE NEOPLASIAS, AND HORMONE DEPENDENT TUMORS

Are Venous Thromboembolic Events Increased in MEN1 Patients?

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SUN-124

Background: Multiple endocrine neoplasia type 1 (MEN1) is a rare inherited disorder in which patients develop multiple simultaneous hormone-secreting tumors. Most common tumors include: anterior pituitary adenomas (50%), multi-gland parathyroid adenomas (95%), and gastroenteropancreatic neuroendocrine tumors (40-80%). Only rare MEN1 associated glucagonomas (<1%), and ACTH-producing neuroendocrine tumors (<5%) are known to increase risk of hypercoagulability. It is unknown if patients with MEN1 syndrome have increased risk of venous thrombolytic events (VTE), defined as a deep-vein thrombosis and/or pulmonary embolism.

Methods: We queried a prospective natural history study of MEN1 patients who tested positive for germline *MEN1* mutations (n=287) between 1991-2019 (54 patients on our current protocol were followed before 1991; the earliest was 1971). All lifetime events of VTE were included. Search terms included: DVT, thromb, embol, PE, pulmonary embolism, clot, hematology consult, anticoagulant, coumadin, lovenox, xarelto, warfarin, aspirin, rivaroxaban and apixaban. After initial screening, 10 patients were removed due to insufficient clinical data. Kaplan-Meier analysis was performed to compare age of death between the two cohorts. Results were expressed as mean ± standard deviation.

Results: Thirty-four subjects (mean 57.5 years-old, 17 women) were identified with any VTE, yielding a prevalence rate of 13.4%. The incidence of VTE corresponded to 264 events per 100,000 patient-years, which was ~2-fold higher than the estimated annual incidence rate in the general population (104-183/100,000 patient years).[1] Kaplan-Meier analysis revealed no significant difference in survival between the two groups (non-VTE cohort mean 81.1 years ± 2.23; VTE cohort mean 77.4 years ± 3.45; p = 0.96). Thirty-two events occurred during the surveillance period at our institution; 9 individuals had more than one VTE. At the time of VTE, 80% had hyperparathyroidism (mean PTH ± SD; 97.56 pg/mL ± 90.76), 21% had hyperprolactinemia (prolactin 25.7µg/L ± 43.41), 62.5% had hypergastrinemia (mean gastrin 1100.9 pg/mL ± 3127.8), and 84.6% had non-functional pancreatic neuroendocrine tumors. One patient was identified to have a Factor V Leiden mutation, 3 patients had lupus anti-coagulant. Eleven patients experienced events within a post-surgical period of 3 months.

Conclusions: Hypercoagulability in MEN1 has been previously unidentified. Our cohort data suggests a two-fold increase in the incidence of VTE as compared to the general population, with a high risk occurring within the perioperative period. Further mechanistic investigation and validation from other cohorts are needed to confirm the increased prevalence of VTE in this population.

[1]Heit, John A., et al. Epidemiology of venous thromboembolism. *Nat Rev Cardiol* 2015 Aug;12(8): 464-474.

Cardiovascular Endocrinology

PATHOPHYSIOLOGY OF CARDIOMETABOLIC DISEASE

Levels of Nesfatin-1 in Adolescents, and Its Association with Body Mass Index and Risk of Cardiovascular Disease

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SUN-575

Nesfastin-1 is a recently discovered anorexigenic neuropeptide, which seems to follow the signaling pathway of melanocortin, and is involved in cardiovascular regulation (1). It is expressed in several tissues, including pancreatic islet cells, the central nervous system, In subcutaneous and visceral fat tissue, among others (2). There are few and controversial data that assess the levels of nesfatin-1 and its relationship with the cardiovascular disease. The aim of this study was to evaluate the serum levels of nesfatin-1 in adolescents with different metabolic status and BMI and its association with cardiovascular risk factors (glucose, lipid profile).

Material and methods: This cross-sectional study included adolescents between 15 and 19 years old, classified in 3 groups according to BMI and HOMA-IR: adolescents with normal weight without metabolic alterations (n = 30), metabolically healthy obese (MHO) n = 30 and metabolically unhealthy obese adolescents (MUO) n = 42. Anthropometric measurements were performed, a fasting blood sample was taken to quantify glucose, lipid profile and creatinine. Insulin and nesfatin-1 concentrations were measured by ELISA. Statistical tests employed were Kruskal Wallis, Spearman correlation.

Results: the group of adolescents MUO had higher levels of total-C ($p<0.0002$); triglycerides ($p<0.00001$) compared to the control and MHO; higher levels of nesfatin-1 ($p=0.0002$) and lower levels of HDL-C ($p<0.002$) compared to the control group. A positive correlation was between nesfatin-1 and BMI ($p<0.001$), triglycerides ($p<0.027$), and HOMA-IR ($p<0.025$) and negative correlation with HDL-C ($p<0.026$)

Conclusion: Our results show that metabolically unhealthy obese adolescents have higher concentrations of nesfatin-1, showing an association with traditional cardiovascular risk factors, which could lead to the development of cardiovascular disease.

Nothing to disclose GK, KC, GOA, LCC, FMM, GA, GSME

Sources of research support: Grant University of Guanajuato (DAIP 302/2018)

References: (1) Oh-I et al., Nature. 2006; 443:709–712. (2) Stengel A et al., Regulatory Peptides. 2010; 163:18–23

Neuroendocrinology and Pituitary

CASE REPORTS IN SECRETORY PITUITARY PATHOLOGIES, THEIR TREATMENTS AND OUTCOMES

Co-Secreting TSH and Growth Hormone Pituitary Adenoma

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SAT-276

Introduction: Secreting pituitary adenoma is exceedingly rare. Less than 15 cases having been reported. Its clinical presentation and diagnosis is challenging. We report a case of pituitary