

Reference: (1) Huang, Zhengxiang, et al. "Dapagliflozin restores insulin and growth hormone secretion in obese mice." *Journal of Endocrinology* 245.1 (2020): 1-12.

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Adrenal

ADRENAL - HYPERTENSION

Diagnosis of Non-Functional Masses in Adrenal Gland Topography - Experience of a Tertiary Health Center

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MON-206

Introduction: Masses in adrenal topography are diagnosed frequently due to the increase in radiological imaging in clinical practice. Adrenal incidentalomas occur between 4% and 10% of the patients above 50 years undergoing abdominal imaging, and the majority are benign pathologies.

Objective: To analyze the characteristics of the masses located in adrenal gland topography not originating from the adrenal gland. **Methods:** We retrospectively assessed patients from our tertiary hospital who underwent surgical treatment for masses in adrenal gland topography between 2006 and 2018. All patients had hormonal evaluations, according to the European and American Societies of Endocrinology guidelines. Two expert radiologists reviewed all images. Forty-six patients were included in the study, and the surgical specimens were analyzed by the same experienced pathologist. Patients with confirmed adrenocortical carcinoma (ACC) were excluded from this cohort. **Results:** Thirty-two (69.6%) patients were female. The median age was 49.5 years old (range 18-82yo). Abdominal or lumbar pain was the most frequent reason for medical investigation (43.5%). Adrenal incidentalomas represented 38.4% of the cohort. None of these patients had any clinical signs of adrenal hyperfunction, nor hormonal alteration. Twenty-four patients (52.17%) presented a mass on the left side, and only two cases presented bilateral adrenal masses. The median size was 8.6cm (1.3-18cm). The mean of Hounsfield Units (HU) on a non-contrasted CT was 25HU (0-50HU). Several etiologies were found: 8 cases (18%) of ganglioneuroma; 6 cases (13.5%) of adrenal cysts; 4 cases (9%) of leiomyosarcoma and adrenal hemorrhage; 3 cases (6.5%) of infectious disease; 2 cases (4.5%) of lymphangioma, schwannoma, and sarcoma. We also found single cases of renal cell carcinoma, poorly differentiated

small cell neuroendocrine carcinoma, hepatocellular carcinoma, high grade dedifferentiated liposarcoma, epithelioid neoplasia, epithelial neoplasia with neuroendocrine differentiation, malignant peripheral nerve sheath tumor of the adrenal gland, poorly differentiated neuroblastoma, high grade lymphoma, myelolipoma, acute splenitis, arteriovenous malformation, and prostate cancer metastasis.

Discussion and Conclusion: Ganglioneuroma was the most frequent diagnosis in adrenal incidentalomas in our cohort. In general, these conventional radiological exams could not differentiate lesions originated in the adrenal glands from lesions of other origins. In this large cohort, we could identify non-adrenal origin in approximately 45% of the patients with masses in the adrenal topography.

Healthcare Delivery and Education

EXPANDING CLINICAL CONSIDERATIONS FOR PATIENT TESTING AND CARE

Reducing Unnecessary Repeat Vitamin D Testing at a Large Ambulatory Hospital: A Quality Improvement Initiative

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Background:

With the increasing interest in the importance and potential benefits of vitamin D, there has been a significant rise in unnecessary vitamin D testing.

The aim of the project was to reduce unnecessary repeat vitamin D testing at Women's College Hospital by 50% by May 30th 2020.

Methods:

The Model for Improvement framework was used in the design of the quality improvement project to reduce unnecessary repeat vitamin D testing. Problem characterization was conducted to design the intervention to address root causes and iterative Plan-do-Study-Act cycles were used to develop an intervention that incorporated a best practice advisory (BPA). The primary outcome measure was unnecessary vitamin D testing. Unnecessary repeat testing was defined as: repeat 25-hydroxyvitamin D testing within 3 months or repeat 25-hydroxyvitamin D testing after a normal result (>75 mmol/L) in the preceding 12 months. Secondary outcomes which included BPAs generated, as well as the number of BPAs that resulted in no test being ordered were tracked. Paper-based orders were also tracked as a balancing measure.

Results:

It was identified that 12.7% of vitamin D testing (n=289/2276) between July 2017 and July 2018 was related to unnecessary repeat testing. Following our cause and effect analysis and problem characterization, it was noted that providers ordered repeat vitamin D testing due to being unaware of prior normal results, as well as due to