Reproductive Endocrinology

TRANSGENDER MEDICINE AND RESEARCH

Galactorrhea and Hyperprolactinemia in a Transgender Female

Rachna Unnithan, MD[1], Diane Frances Elson, MD[2], Yoram Shenker, MD[3].
[1]University of Wisconsin Hospital and Clinics, Madison, WI, USA, [2]Univ of Wisconsin West Clinic, Madison, WI, USA, [3]Univ of Wisconsin, Madison, WI, USA.

SUN-043

Background: Galactorrhea is a rare manifestation of hyperprolactinemia in males and post-menopausal females, however the hormonal milieu of the transgender female may increase its incidence

Clinical Case: A 43 year old transgender female presented with three years of bilateral breast discharge. She had chronic, stable headaches and fatigue, but no vision changes or other symptoms. Notably, she had breast augmentation surgery with saline breast implants placed shortly before the galactorrhea commenced. She was on a stable dose of estradiol tablets 1 mg twice daily for six years. On physical exam she had pronounced bilateral breast discharge of a milky quality with nipple compression. Prolactin levels were checked several times and were 40-50 ng/mL, TSH was 2.36 uIU/mL. An MRI showed a left inferior pituitary lesion measuring 6 mm x 3 mm x 5 mm with no mass effect on adjacent structures. Her breast discharge was not bothersome to her, and her pituitary lesion was small. It was unclear whether there was a relationship between her prolactin levels and the lesion seen on MRI, as we expected more pronounced prolactin elevation with a prolactinoma. Instead, given the timing of her symptoms in relation to her breast augmentation surgery, her galactorrhea and hyper-prolactinemia were thought to be the result of nipple irritation related to her breast implants combined with a hyper-estrogenemic state.

Clinical Lessons: In the setting of a prolactin secreting microadenoma, galactorrhea in a male is highly unusual. This case highlights the importance of recognizing that the unique medical and surgical characteristics of male to female transgender patients can lead to hyper-prolactinemia and galactorrhea.

Reference: Reisman T, Goldstein Z. Case report: induced lactation in a transgender woman. Transgender Health. 2018;3(1):24-26.

Cardiovascular Endocrinology

ENDOCRINE HYPERTENSION AND ALDOSTERONE EXCESS

Identification of Somatic Mutations in CLCN2 as a Cause of Aldosterone-Producing Adenomas

Juilee Rege, PhD[1], Kazutaka Nanba, MD[1], Amy R. Blinder, BS[1], Tobias Else, MD[1], Scott Tomlins, MD, PhD[1], Pankaj Vats, PhD[1], Chandan Kumar-Sinha, PhD[1], Thomas J. Giordano, MD,PhD[2], William E. Rainey, MS PHD[1].
[1]University of Michigan, Ann Arbor, MI, USA, [2]University of Michigan Medicine, Ann Arbor, MI, USA.

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Background: Primary aldosteronism (PA) results from both unilateral and bilateral adrenal disease. Unilateral disease is most often caused by aldosterone-producing adenomas (APAs). We recently identified aldosterone-driver somatic mutations in approximately 90% of APAs using an aldosterone synthase (CYP11B2) immunohistochemistry (IHC)-guided DNA sequencing approach. In the present study, we analyzed DNA from APA samples found to be mutation negative. **Methods:** Formalin-fixed paraffin-embedded tissue samples from PA patients who underwent adrenalectomy were studied. Genomic DNA was isolated from 118 APAs (identified by CYP11B2 IHC). Next generation sequencing (NGS) was performed to identify known aldosterone-driver mutations in *KCNJ5, ATP1A1, ATP2B3, and CACNA1D*. APA DNA that was mutation negative and the adjacent normal adrenal tissue DNA were subjected to Whole Exome Sequencing (WES). **Results:** Targeted NGS and WES detected two variants in the voltage-gated chloride channel ClC-2 (encoded by *CLCN2*), which were confirmed by Sanger sequencing. One of the *CLCN2* mutations (p.Gly24Asp) was identical to that previously found to cause germline early-onset PA. The second *CLCN2* mutation, which would affect the same region of the protein, was an unreported PA mutation (p.Met22fs). The presence of these variants in two tumors suggests that *CLCN2* mutations as a cause of APAs are rare with an approximate prevalence of 1.7% (2/118 APAs). **Conclusion:** In this study, we identified somatic mutations in *CLCN2,* in two of 118 APAs. Germline variants in this gene have previously been shown to cause of familial hyperaldosteronism type II and the current findings indicate that similar mutations cause a small proportion of APAs. These findings also indicate that WES of CYP11B2-guided mutation negative APAs can help determine rarer genetic causes of sporadic PA.

Diabetes Mellitus and Glucose Metabolism

DIABETES COMPLICATIONS II

Islet Auto-Transplantation Following Partial Pancreatectomy Improves Glycemic Outcomes and Reduces Length of Hospital Stay: Multi-Center, Case-Control Study

Sushela S. Chaidarun, MD,PHD,FACE,FACP[1], Joe B. elmunzer, MD[2], Smith D. kerrington, MD[1], Timothy B. Gardner, MD, MS[1].
[1]Dartmouth-Hitchcock Med Ctr, Lebanon, NH, USA, [2]University of South Carolina, Columbia, SC, USA.

MON-705

Introduction: Islet auto-transplantation (IAT) is increasingly being performed to prevent brittle diabetes following pancreatic resection in patients with benign pancreatic diseases. While patients undergoing total or completion pancreatectomy clearly benefit from IAT, the glycemic benefit of IAT in patients undergoing partial pancreatic resection is not known. We aimed to determine if IAT improved glycemic outcomes in patients undergoing partial pancreatectomy for benign pancreatic diseases. **Methods:** We performed a multicenter, retrospective case-control study of patients who underwent partial pancreatic resection with IAT at two tertiary care centers. Case patients were compared to controls who underwent partial pancreatic resection without IAT at one center prior to offering IAT. The primary outcome was the mean change in pre vs.