hospitals has not been reported until now. The key challenges in Indian Rural healthcare sector are Lack of Quality Infrastructure, Dearth of qualified medical functionaries and NonAccess to basic medicines and medical facilities thwarts its reach to population in rural India. Indian Health Care sector is a self-pay market. Lack of awareness & affordability being a challenge with patients they remain apprehensive in acceptance of Advanced Technology or newer Techniques.

This series is an attempt to study A shift in acceptance of progressive surgeries using Advanced Technologies & Techniques by Rural Patients and its Safety & Feasibility in Smaller operative setups in rural India.

#### Methods

Proper patient selection along with proper instrumentation & OT setup helped complete the procedures without any major complication.

Advanced Instrumentation along with essential Operation Theatre setup were utilised for performing Total of 20 TOETVA procedures.

For successful execution of TOETVA surgeries extensive Training Programs were furnished to equip stakeholder teams with respective Skill, Knowledge & Attitude sets. Organisational SWOT Analysis & Competency mapping

contributed to strategise a helping approach to Educate & Influence stakeholders.

#### Results

Total 20 patients were operated by TransOral Endoscopic Thyroidectomy - Vestibular (TOETVA) Technique from May 2018 till September 2019.

Three SubTotal Thyroidectomies & 16 Hemithyroidectomies were performed. One patient was operated for Thyroglossal cyst.

Increased awareness about a need to Improve on competence of Empathy & Accountability, Pursuit of Quality Care & Inculcating Cost-Effective use of the results of relevant research in regular functions.

## Conclusions

There is a noticeable paradigm Shift in acceptance of rural patients as well as of rural paramedical staff that these surgeries which require Advanced Technology & Innovative Techniques are easily *Accessible & Executable* without undue cost burden with utmost safety at their own vicinity even in the small setup hospitals.

This study aids to recommend Feasibility & Safety of TOETVA even for small setup of hospitals in Rural India.

# Pediatric Endocrinology PEDIATRIC PUBERTY, TRANSGENDER HEALTH, AND GENERAL ENDOCRINE

## Genetic Studies of Height-Associated Protein Expression Levels in Childhood

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## **SUN-054**

Background: Genome-wide association studies (GWAS) have identified thousands of common genetic variants associated with human height, implicating hundreds of genes and loci. However, the mechanisms by which many of these genetic variants contribute to human adult height are still unknown. Integrating knowledge of the interaction between genetic background and protein levels in childhood can provide insights into the biology of human growth. Objective: To investigate biological associations at heightassociated loci in the GH-IGF signaling pathway. Methods: We used data from the Cincinnati Genomic Control Cohort, a community-based cohort comprised of 1,020 children. The study was approved by the institutional review board at Cincinnati Children's Hospital Medical Center. Protein levels for free and total IGF-I, intact and total IGFBP-3, PAPP-A2, IGF-II, and IGFBP-5 were measured by ELISA in 839 children (ages 3-18 years) and corrected for ageand sex-effects. We associated protein-level phenotypes using plink qassoc and stratified by sex and population, in ~870 European- and African-descent individuals. Metaanalyses were performed using the METAL fixed-effects model. GWAS of anthropometric traits were performed in the UK Biobank of ~400,000 individuals using Bolt-LMM, or curated from publicly available summary statistics. Results: We identified 17 independent genome-wide significant protein-level-associated loci (p<5x10<sup>-8</sup>). The most robust associations were previously identified expression quantitative trait loci (eQTLs). The IGFBP3 locus was associated with serum total IGFBP3 and IGF-II levels. Despite falling within a height locus, conditional analyses showed that the effect on IGFBP-3 protein levels was independent of the height signal (p=2.8e-31, post conditioning). However, conditional analyses showed that the protein level signal colocalizes with a known GWAS signal for sitting height ratio (SHR). The IGFBP5 locus was associated with IGFBP-5 protein levels and was also independent of height signals identified in the region (p=3.3e-32, post conditioning). Conclusions: We have identified novel pQTLs for IGF2, IGFBP3, and IGFBP5 that act independently from genetic signals in the same regions associated with adult height but may interact with related anthropometric traits including SHR. Additionally, this suggests that SNPs affecting adult height in these loci do not work via increasing serum levels of these proteins but rather through a different and undetermined mechanism.

## Adrenal

## ADRENAL CASE REPORTS II

A Case of Aldosterone-Producing Adenoma with Preoperative Use of a Novel Mineralocorticoid Receptor Antagonist Esaxerenone

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## SIIN-176

A case of aldosterone-producing adenoma with preoperative use of a novel mineralocorticoid receptor antagonist esaxerenone

Background: Esaxerenone is a novel mineralocorticoid receptor antagonist (MRA) with nonsteroidal structure and