signaling pathway effector molecule TAZ and the oncogene c-myc. Interestingly, NTZ decreased the expression of epidermal growth factor receptor (EGFR) that plays an important role for RET activation in MTC. Importantly, NTZ increased the expression of p53 upregulated modulator of apoptosis (Puma). Taken together, our findings demonstrate for the first time that NTZ inhibits the growth of MTC cells and decreases the cancer cell metabolism. The mechanisms by which NTZ targets the MTC cells involve the suppression of key oncogenic proteins and upregulation of tumor suppressor molecule. Thus, our study highlights that repurposing this FDA-approved currently used drug may have a greater advantage of being tested in preclinical models of MTC, and therefore, for the rapid consideration of NTZ as a potential therapeutic drug to treat MTC patients in the near future.

Adrenal

ADRENAL MEDICINE — CLINICAL APPLICATIONS AND NEW THERAPIES

Increased Overall Mortality and Cardiovascular Morbidity in Patients with Adrenal Incidentalomas and Autonomous Cortisol Secretion: Results of the ENS@T NAPACA-Outcome Study

Timo Deutschbein, MD[1], Giuseppe Reimondo, MD, PhD[2], Guido Di Dalmazi, MD[3], Irina Bancos, MD[4], Henrik Falhammar, MD, PhD, FRACP[5], Stylianos Tsagarakis, MD,PHD,FRCP[6], John Newell-Price, MD[7], Darko Kastelan, MD, PhD[8], Antonio Stigliano, MD,PHD[9], Carla Maria Scaroni, MD[10], Claudio Letizia, MD[9], Alessandro Prete, MD[11], Valentina Morelli, MD[12], Miomira Ivocic, MD[13], Grigorios Kaltsas, MD FRCP[14], Kalliopi Pazaitou-Panayiotou, MD[15], Felicia Alexandra Hanzu, MD[16], Paola Loli, MD[12], Abdullah Serkan Yener, MD[17], Zulfiya Shafigullina, MD[18], Katharina Langton, MSc[19], Sabina Zacharieva, MD[20], Tomasz Kocjan, MD[21], Massimo Terzolo, MD[2], Martin Fassnacht, MD[1].

[1]University of Wuerzburg, Wuerzburg, Germany, [2]University of Turin, Turin, Italy, [3]University of Bologna, Bologna, Italy, [4]Mayo Clinic, Rochester, MN, USA, [5]Karolinska Institutet, Stockholm, Sweden, [6]Evangelismos Hospital, Athens, Greece, [7]University of Sheffield, Sheffield, United Kingdom, [8]University of Zagreb, Zagreb, Croatia, [9]University of Rome, Rome, Italy, [10]University of Padova, Padova, Italy, [11]University of Birmingham, Birmingham, United Kingdom, [12]University of Milan, Milan, Italy, [13]University of Belgrade, Belgrade, Serbia, [14]University of Athens, Athens, Greece, [15]University of Thessaloniki, Thessaloniki, Germany, [16]University of Barcelona, Barcelona, Spain, [17]Dokuz Eylul University, Izmir, Turkey, [18]University of St. Petersburg, St. Petersburg, Russian Federation, [19]University of Dresden, Dresden, Germany, [20]University of Sofia, Sofia, Bulgaria, [21]University of Ljubljana, Ljubljana, Slovenia.

OR25-05

Objective. Several smaller studies on adrenal incidentalomas (AI) suggested an association between autonomous cortisol secretion (ACS) and mortality (Di Dalmazi Lancet Diabetes Endocrinol 2014, Debono J Clin Endocrinol Metab 2014, Patrova Endocrine 2017). However, a recent meta-analysis (9 studies, 1356 patients) could not confirm these findings (Elhassan Ann Intern Med 2019). **Aim.** To investigate the effects of ACS on mortality, prevalence of cardiovascular (CV) risk factors, and (CV) morbidity, in a representative cohort of AI. **Design.** Retrospective observational study conducted at 27 ENS@T centers from 15 countries. **Methods.** Inclusion criteria: AI diagnosed 1996-2015, 1 mg dexamethasone suppression test, follow-up (FU) of ≥36 months, known survival status. Exclusion criteria: clinically relevant adrenal hormone excess (i.e. Cushing's syndrome, pheochromocytoma, primary hyperaldosteronism), known malignancy. Patient stratification: serum cortisol after dexamethasone (>5 µg/dl, ACS; 1.9-5 µg/dl, possible ACS (PACS); ≤1.8 µg/dl, non-functioning adenoma (NFA)). Definition of CV events (CVE): hospitalization due to myocardial infarction and related interventions (PTCA, surgical bypass), stroke, deep vein thrombosis, pulmonary embolism. **Results.** 3640 patients (57% NFA, 36% PACS, 7% ACS) were considered eligible: 64% females; median age 61 years (range 18-91); median FU 84 months (36-277) (distribution between subgroups n.s.). 352 patients died during FU. Age- and sex adjusted overall survival was significantly reduced in patients with PACS (HR 1.55; 95%CI 1.24-1.94) and ACS (1.84; 1.29-2.61). Prevalence of CV risk factors were significantly higher in PACS and ACS than in NFA (hypertension: 72, 73, 57%, p<0.0001; dyslipidemia: 42, 49, 35%, p<0.0001; diabetes: 22, 25, 17%, p<0.0001) When adjusted to relevant confounders (i.e. age, sex, CV risk factors), time to first CVE was shorter in PACS (HR 1.36; 1.07-1.73) and ACS (HR 1.62; 1.10-2.40) compared to NFA. **Conclusion.** PACS and ACS are associated with increased overall mortality and CV morbidity. However, to prove causality a large randomized intervention trial is required.

Reproductive Endocrinology

CLINICAL STUDIES IN FEMALE REPRODUCTION II

Variable Presentation of Two Patients with Gestational Trophoblastic Disease and Hyperthyroidism.

Bettina Chale-Matsau, MBBCh (Wits), FCPath (SA), Mmed (UP), PhD (UP)[1], Samantha Mokoena, MBChB, Mmed (Int Med), FCP(SA)[2], Tanja Kemp, MBChB, Mmed (Int Med), Cert Endo and Met (SA)[2], Tahir S. Pillay, MBChB, PhD, FRCPath, FCPath[1].

[1]NATIONAL HEALTH LABORATORY SERVICE/University of Pretoria, Pretoria, South Africa, [2]University of Pretoria, Pretoria, South Africa.

SUN-009

Background: Gestational trophoblastic disease (GTD) represents a group of tumours caused by abnormal proliferation of trophoblastic cells, including molar pregnancy. Elevated β-hCG levels are an established marker for the presence of the disease and useful for monitoring. Due to the shared structural homology of β-hCG and TSH, hyperthyroidism can occur.

Clinical Cases: We present two patients with GTD associated with hyperthyroidisim. Case 1, a 20 year old female (G1P0) presented to the emergency department complaining of vaginal bleeding associated with abdominal pain. She was estimated to be 13 weeks. Laboratory