polymerase II (Pol II). The Med1 subunit of Mediator is required for PPARγ-stimulated conversion of mouse embryonic fibroblasts to adipocytes in culture. However, it has remained unclear whether MED1 is required for adipose tissue development in vivo. Using Med1 conditional knockout mice, here we report that MED1 is required for postnatal adipose tissue development/expansion, a process that involves dramatic induction of lipogenic enzymes such as SCD1. Mice with Myf5-Cre-mediated MED1 knockout in progenitor cells show normal embryonic development of brown adipose tissue (BAT) but become runts with reduced BAT and white adipose tissue (WAT) after birth. Furthermore, mice with Adipoq-Cre-mediated MED1 knockout in adipocytes show reduced accumulation of lipid droplets and impaired induction of SCD1 in BAT and WAT. These mice display severe lipodystrophy, cold intolerance, and insulin resistance. In culture, Med1 is dispensable for the induction of adipogenesis markers including PPARγ and C/EBPα in the early phase of preadipocyte differentiation. However, Med1 is required for SCD1 induction, lipogenesis and lipid accumulation in the late phase of adipogenesis. Our preliminary data suggest that MED1 controls the induction of SCD1 by facilitating the recruitment of Mediator and subsequently Pol II to active enhancers bound by the lipogenic TF ChREBP. Taken together, our findings indicate that MED1 is a lipogenesis coactivator required for postnatal adipose tissue expansion.

Adrenal

ADRENAL - HYPERTENSION

Phaeochromocytoma-Paraganglioma (PPGL): Post-Operative Hypotension Is a Vanishing Phenomenon

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Background: Treatment of hemodynamic instability in patients with PPGL in the intra-and postoperative periods is challenging. Persistent postoperative hypotension is a common and serious complication, reportedly occurring in 30-60% of PPGL patients. This phenomenon reflects 1) high doses of pre-operative antihypertensive drugs; 2) low intravascular volume secondary to chronic catecholamine-induced vasoconstriction with pressure natriuresis; 3) the sudden drop in circulating catecholamines after surgery. It has been shown that tumor size and preoperative levels of catecholamines are directly related to the need for treatment with vasopressor agents in the early period after tumor removal. The aim of this study was to evaluate the efficacy and safety of the current perioperative treatment protocol for PPGL used in our Institute. Methods: We retrospectively reviewed the rate of hemodynamic instability and postoperative hypotension in relation to catecholamine levels, and the efficiency of preoperative pharmacological preparation in consecutive patients with PPGL treated between 2000-2019. Results: There were 39 patients (F/M 19/20; mean age 50.4 ±16.5 years) 33 of which had adrenal lesions and 6 had extra-adrenal tumors. Mean tumor size was 3.9 ±2.2 cm. Median metanephrine and normetanephrine levels were 5 and 10 fold the upper limit of the normal range respectively. All patients were treated with α-blockade (phenoxybenzamine-17, mean dose 60±38 mg/day; doxazosin-22; mean dose 9.6±6.1mg/day) along with β-blockade, and high sodium diet and IV saline 24 hours before the operation. The length of the preoperative preparation period was 3.4±2 weeks. Within the first 24-48 hours from surgery, no episodes of hypotension (<90 mmHg systolic pressure) were recorded. Mean systolic BP was 121 ±14 (range 95-150) with a mean diastolic BP of 70 ±11 (range 89-46). In contrast, intraoperative hypotension occurred in 22% of the patients; and BP surge occurred in 36% of patients, mostly during tumor manipulation. There were no differences between subjects with and without such BP rises/falls in terms of pre/post- surgical BP, catecholamine levels or type of medical treatment. Conclusion: In contrast with older literature and previous reports, the patients in our cohort did not experience postoperative hypotension. This is most likely due to tight BP control while avoiding pre-operative hypotension, and adequate volume control. We propose that proper preoperative management in the modern era can drastically minimize intraoperative hemodynamic instability and postoperative hypotension.

Reproductive Endocrinology

MALE REPRODUCTIVE HEALTH - FROM HORMONES TO GAMETES

Ambulatory Blood Pressure Increases in Hypogonadal Men Who Develop Increases in Hematocrit on Oral Testosterone Undecanoate

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SAT-038

There is concern that testosterone replacement therapies might increase blood pressure (BP) with chronic use.