48 UNRELIEVING PERINATAL MENTAL ILLNESS: A POTENTIAL ROLE FOR TESTOSTERONE AND DEHYDROEPiANDROSTERONE SULFATE AS BIOMARKERS. C.R. Marr, D.P. Ferrando, University of Nevada, Las Vegas, Las Vegas, NV. Purpose: Perinatal psychiatric disturbances are significant medical conditions that can have tragic sequelae, yet their genetics remain undetermined. While a causative role for estradiol and progesterone has been hypothesized, empirical support is inconclusive. This study was designed to measure adrenal hormone concentrations during and after pregnancy and to determine if, in any women with documented or untreated perinatal mental illness, testosterone (T) and dehydroepiandrosterone sulfate (DHEAS) were significantly correlated with perinatal mental illness. Methods: After obtaining approval from the Institutional Review Board, 27 subjects (25 subjects with and four controls) were included. Baseline hormone concentrations were measured at the beginning of the study. All subjects were subsequently admitted to the NICU. Hormone concentrations were measured at baseline and on days 1, 3, 7, and 14 after delivery. The Hamilton Rating Scale for Depression (HRSD) was used to assess depressive symptoms. The diagnosis of perinatal mental illness was established by the presence of a positive HRSD score of 14 or greater during the study period. Results: Baseline HRSD scores were significantly increased in the perinatal mental illness group compared to controls (p < 0.001). There were no significant differences in baseline hormone concentrations between the two groups. However, a significant negative correlation was found between baseline HRSD scores and baseline concentrations of T (r = -0.63, p = 0.01) and DHEAS (r = -0.64, p = 0.01). Conclusion: These findings suggest that decreases in baseline androgen levels may be associated with perinatal mental illness. Further investigation is needed to determine if these findings have clinical relevance.

49 BASILAR ARTERY MIGRAINE WITH HIGH ADRENERGIC NEUROVASCULAR AND VAGAL ACTIVITY. N. Milla, C. Smilkstein, H. Morgan, J.L. Keleman, K. Schieffer. VA Puget Sound Health Care System, Seattle, WA. Purpose: To better understand the relationship of high neurovascular and vagal activity with migraine headache. Methods: Twenty migraineurs (10 with aura and 10 without aura) were recruited using advertised newspaper, magazine, and social media. The subjects were interviewed and screened before being invited to participate. The headache electronic diary was collected for 7 day periods and analyzed according to aura and presence of nausea at the time of headache onset. Heart rate variability (HRV), including low frequency (LF) and high frequency (HF) power, was measured using a sensor placed on the middle phalanx of the index finger and analyzed using Kubios HRV software. Migraine characteristics and aura were also measured. Results: There were no significant differences in age, sex, or body mass index (BMI). There was a significant difference in HRV, with migraineurs scoring significantly higher in HF and lower in LF. There was no difference in the frequency of headache or aura between the groups. Conclusion: Migraineurs with aura have significantly higher HRV during the 7 days before headache onset and have a lower LF ratio compared to those without aura. These findings suggest that there may be autonomic nervous system changes that contribute to the pathogenesis of migraine with aura.

50 LASER-INDUCED THERMAL THERAPY FOR RECURRENT HEAD AND NECK CANCER: A COMPREHENSIVE REVIEW. D.C. Lascaro, M. Bala, J. Sencar, University of California, Los Angeles, CA. Objective: To review the use of laser-induced thermal therapy (LITT) for the treatment of recurrent head and neck cancer. Methods: A comprehensive review of the literature, including clinical trials, research articles, and review papers, was conducted. The search was limited to studies published in English and included those that evaluated the efficacy and safety of LITT for recurrent head and neck cancer. Results: A total of 35 studies were identified. The studies were published between 1985 and 2019. The majority of studies were case reports or small case series. The most common laser used was the Nd:YAG laser. The most common indications for LITT were recurrent squamous cell carcinoma of the head and neck. The most common sites of recurrence were the larynx, hypopharynx, and oral cavity. The majority of studies reported complete response rates ranging from 60% to 80%. The most common adverse events were pain, hoarseness, and dysphagia. The overall survival rates at 1 year ranged from 50% to 80%. Conclusion: LITT is a promising modality for the treatment of recurrent head and neck cancer. However, further research is needed to determine the optimal treatment parameters and to compare its efficacy with other treatment options.