

130 The clinical application of ABPM in obstetric patient. M. Ohnishi, Y. Miyake, H. Sakata, K. Satoh, Dept. Obst. and Gynec., Nihon Univ. Sch. Med., Tokyo.

The serial blood pressure (BP) and heart rate (HR) were taken every 30 min serially for 48 hrs by using ABPM-630 (Nippon Colin) in non-pregnancies (5), nurses on night duty (3), normotensive (40), chronic hypertensive pregnancies (9) and preeclampsia (10). Plasma levels of PRA, aldosterone, ACTH and cortisol were measured every 4 hrs (8°, 12°, 16°, 20°, 0°, 4°) in normotensive (3) and severe preeclampsia (7). All of these data were analyzed by the cosinal method of Prof. Halberg. Result: 1) The mesor of BP were decreased and mesor of HR were increased during normal pregnancy. The increased mesor and decreased amplitude of BP were characteristic in severe preeclampsia. 2) The decreased correlation rate between BP and HR and dyssynchronization in the acrophase of BP and HR found in severe preeclampsia revealed some dysfunction in the autonomic nervous system. 3) A cosinal analysis of the endocrine dynamics revealed both suppressed mesor and amplitude with respect to PRA and aldosterone. 4) The clinical application of 24 hrs ABPM in obstetrics, especially mesor and mesor/amplitude ratio were useful in the differential diagnosis and early detection of preeclampsia.

131 Electron microscopic observations of renal biopsy materials in gestosis H. Seo, T. Kurashima, T. Tanaka, N. Tsutsumi, H. Itoh*, M. Ohishi**. National Okura Hospital*, Kanagawa Prefectural Atsugi Hospital**.

[Purpose] We studied the relationship between gestosis disease type and morphological changes in the kidney.

[Methods] On 13 subjects, namely, 11 cases of pure type gestosis and 2 cases of mixed type gestosis, at the time of abdominal caesarean section we conducted a needle biopsy of the right kidney retroperitoneally.

[Results] The most characteristic change observed in the kidney was loop capillary ballooning. Other changes included swelling of the endothelial cells, hyalinosis, appearance of vacuoles, swelling of the epithelial cells and the appearance of deposits either subepithelially or subendothelially. In cases with early onset gestosis, these changes were especially marked, and in pure type repeated gestosis, the electron microscopic changes the kidney were observed to present findings of chronic changes. In cases with mixed type gestosis, varied findings were observed.

[Conclusion] Electron microscopically, a definite relationship was observed between the degree of damage to the kidney/degree of severity in gestosis and the fetal growth. Also, in repeated cases, the possibility that sequelae latently remain was suggested.

132 Reassessment of the most appropriate gestational period for the glucose challenge test in order to screen glucose intolerance during pregnancy. N. Toyoda, K. Yoshimura, T. Ichio, M. Ida, T. Deguchi, M. Tanaka, E. Yokawa, M. Niwa, T. Yamamoto, Y. Sugiyama, Dept. Obst. and Gynec., Mie University School of Medicine, Mie

Glucose challenge test (GCT) is recommended internationally to be performed between the 24th and the 28th week of gestation, namely 23 and 27 weeks' gestation. However, the appropriateness of this gestational period is not clear. In order to reassess the gestational period for the GCT, we conducted GCT to three groups of pregnant women who had not been identified as having glucose intolerance before pregnancy; early: 7-15 weeks (n=354), middle: 23-27 weeks (n=418), late: 28-40 weeks (n=217). GCT value in the middle group was not much different from the early group, but that in the late group was significantly greater than that in other groups. The incidence of various glucose intolerance in the early and middle group was not much different, and that in the late group was higher than the two. There was a significant correlation between GCT or prepregnant body mass index and birth weight in the early and late group, but not in the middle group. If GCT during late pregnancy is not chosen from the standpoint of treatment, GCT during early pregnancy is recommended.