153 Assessment of cerebral hemodynamics in hypertensive pregnant women by Transcranial Doppler velocimetry. T.Ikeda,N.Mori. Dept.Obst.and Gynec., Miyazaki Medical College,Miyazaki.

Internal carotid and middle cerebral artery velocimetries were carried out in 26 pregnant women (ranged 28 to 39 weeks of gestational age) with hypertensive disease (12 pregnancy-induced hypertension, (PIH) 8 chronic hypertension with superimposed pregnancy-induced hypertension (superimposed PIH), 6 chronic hypertension). 83% of patients with PIH was associated with increased velocity in the middle cerebral artery while internal carotid artery velocity remained normal. 38% of patients with superimposed PIH showed abnormal fast mean velocity in middle cerebral artery. These changes were most apparent in 3 subjects with prodromal symptoms of eclampsia. While all patients with chronic hypertension showed normal velocity in middle cerebral artery. These facts indicated that vasospasm occurred in trunk in the middle cerebral artery in most case of PIH and in certain part of superimposed PIH. Pulsatility index in both arteries in hypertensive patients tended to be lower than in normal controls. Combined studies of internal carotid and middle cerebral arteries seemed useful in differetiating pregnant patients with hypertensive disorders and in predicting occurrence of eclampsia.

154 Parmacokinetics of Vitamin K in Mothers and Chirdren in the Perinata l Period. K. Morimoto ,H.Iioka, H,Hisanaga, I.Moriyama, M.Itijyou, Dept.O bst.and Gynec,Nara Med Univ.Nara

Vitamin K deficiency is a very important problem in the perinatal period. Preventive administration of vitamin K to newborns has been widery perform ed in the clinical field.However,the pharmacokinetics of vitamin K in moth ers and chirdren in the pregnant period,transplacental transport in paticu lar,remeins unclear.It is generary thought that transport of vitamin K thr ough the placenta is pooor and that the vitamin K concentration in fetal b lood is very low.

In order to examin the parmakokinetics of vitamin K_2 vitamin K_2(MK-4) was intravenously injected into mothers,and its transfer to placental tissue and fetuses was examined.While incorporation of vitamin K_2 into placental tissue was reratively active,transfer of vitamin K_2 to fetal blood(cord bl ood) was small.So it was indicated that vitamin K_2 Incorporated into place ntal tissue from maternal blood is initially stored in the placenta and th en gradually released into the fetal blood.

Since vitamin K_2 deficiency has been pointed out,release of vitamin K_2 in to milk was also examined.When vitamin K_2(MK-4) was injected into mothers, the release of vitamin K_2 Into milk increased with time even after plasma vitamin K_2 concentration in maternal blood decreased.So the presence of a vitamin K_2 concentrating mechanism in the mammary tissue was indicated.

155 Correlation between the pattern of basal body temperature and serum progesterone-estradiol ratio at late pregnancy. Y. Notake, T. Suzuki, T. Hondo, T. Morimoto, K. Hirato, T. Yanaihara, Dept. Obst. and Gynec., Showa Univ. Sch. Med., Tokyo

To sutudy the relationship between the pattern of basal body temperature (BBT) in the third trimester and serum steroid levels at delivery in normal pregnancy. BBT was analysed in 209 cases, and serum estradiol (E) and progesterone (P) were measured in 73 cases. Change of BBT is formed to be composed by two component, long and short flactmaton. The pattern of BBT varied, with a short wave superimposed on a long wave. The period of short wave was 6.5±1.9 days (M±SD) and the period of long wave was 25±6 days. There was good correlation between the amplitude of the short wave and the P/E ratio, in 24 of 63 (39%) normal pregnancies. The ratio, P/E increased at the peak of the short wave and decreased at the nadir. The P/E maximum was 14±6.5 at and the minimum was 4.9±2.7. In 170 normal pregnancies, 110 (64%) were delivered 2 days after the last short wave nadir. There was thus good correlation between the BBT pattern, delivery day and the ratio of P/E. A good correlation among these three factors was firstly demonstrated.