

**460** Calcium-regulating hormones and osteocalcin levels during pregnancy  
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We measured serum concentrations of calcium-regulating hormones and osteocalcin in 20 women longitudinally throughout pregnancy. 1,25-Dihydroxyvitamin D levels were high early in pregnancy, and increased with advancing gestation. Parathyroid hormone and osteocalcin levels were low in early pregnancy. They declined toward the middle of pregnancy, but increased in late pregnancy. The serum osteocalcin level correlated with the parathyroid hormone level. The synthesis of osteocalcin by osteoblasts is stimulated by the action of 1,25-dihydroxyvitamin D, and serum osteocalcin levels are also related to the levels of parathyroid hormone. During the early and mid-pregnancy, the stimulatory effect of 1,25-dihydroxyvitamin D on the synthesis of osteocalcin may be overridden by the inhibitory effect of declining parathyroid hormone levels. The increase in osteocalcin level in late pregnancy may be a consequence of increasing levels of both parathyroid hormone and 1,25-dihydroxyvitamin D.

**461** Studies on the Bacteria from the cervical flora in the healthy pregnant women. K.Takahashi\*, K.Kihara\*, T.Hasegawa\*, T.Oda\*, N.Sanjoh.  
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In the study of 131 cases of healthy pregnant women between 16 and 36 weeks of gestation, bacteria, Fungi and chlamydia were detected in 109 cases (83.2%) in cervical discharge, and were isolated in 155 species totally. We found that Lactobacillus sp., Eubacterium sp. and Fungi increased gradually with gestational age. Anaerobe were most highly detected at between 16 and 23 weeks of gestation, and Gram positive cocci were most highly detected at 24-31 weeks of gestation. The incidence of premature delivery were 50.0% in Gram positive rods, 37.5% in Anaerobe, 18.5% in Gram positive cocci, respectively. We conclude that early stage of threatened premature labor could be detected by measurement of bacteria in cervical discharge.

**462** Analysis of urine protein for the prediction of preeclampsia  
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In order to predict preeclampsia, urinary protein analyses were performed. One hundred fifty one urine samples were taken from pregnant women at the gestational age ranging from 5th to 25th week. Preeclampsia developed later in 13 cases of them. Total protein(TP), albumin(Alb),  $\beta_2$ -microglobulin ( $\beta_2m$ ) and creatinine(Cr) were measured. Predictive value of 70mg/cr of TP/Cr with regards to sensitivity, specificity, positive predictive value, and negative predictive value are 46, 67, 13 and 92% respectively. Likewise, the value of 20mg/gCr of Alb/Cr, in the same sequence of results, are 69, 47, 26, and 85% respectively. And the value of 140 $\mu$ g/gCr of  $\beta_2m$ /Cr, in the same sequence of results enumerated in TP/Cr and Alb/Cr, are 42, 83, 33 and 88% respectively. Selectivity of urine protein using IgG, Albumin and low molecular weight protein were checked in 30 urine samples using immunoblot method. No difference was found between normal and preeclamptic group. Fibronectin in urine was measured using immunoblot method. A large amount of fibronectin was detected in 6 of 10 paired sample consisted of normal and preeclamptic group. Our results suggest that the prediction using TP, Alb and  $\beta_2m$  has limitation, and that fibronectin analysis may increase predictive value.