IS-55 Association of Osteoprotegerin T950C gene Polymorphism with Bone Mass in Postmenopausal Korean Women

DJ Kwon, SW Lee, HH Jo, MR Kim, YT Lim, JH Kim, EJ Kim, JH Kim, JW Lee, DH Kim, YO Lew
Dept. of Obstetrics and Gynecology, The Catholic University of Korea, College of Medicine, Seoul, Korea

Objective: Osteoprotegerin (OPG) is a soluble receptor for RANKL and therefore a competitive inhibitor of osteoclast differentiation and activity. To evaluate the relationship between OPG gene polymorphism, and bone mineral density (normal, osteopenic, osteoporotic group) in postmenopausal Korean women.

Methods: The T950C polymorphism of OPG gene was analyzed by PCR-RFLP and electrophoresis in 172 postmenopausal Korean women. Bone mineral density at the lumbar spine and proximal femur was determined by dual energy X-ray absorptiometry.

Results: The genotype distribution of OPG gene polymorphism was as follows: T/T 43.0%, T/C 38.9%, C/C 18.1%. T950C genotypes were not distributed differently among the normal, osteopenic and osteoporotic group. BMD at lumbar spine of osteoporotic group in the T/T genotype was significantly lower than in the T/C genotype. None of other polymorphisms affected bone mineral density among the normal, osteopenic and osteoporotic group.

Conclusions: The results suggest that OPG T950C polymorphism may influence bone mass in postmenopausal Korean women. Further research into the mechanisms, clinical significance and its relation between other genetic and environmental factors is needed.

Keywords: osteoprotegerin (OPG), polymorphism, postmenopause

IS-56 Regional difference in complications during pregnancy and childbirth in National Maternal and Child Health Center in Cambodia

National Maternal and Child Health Center, Cambodia
*Dept. of Hygiene, Yokohama City University School of Medicine
**Japan International Cooperation Agency Cambodia Maternal and Child Health Project

Background & Objectives: Cambodia is one of the lowest-income countries. The estimated maternal mortality ratio is 437 per 100,000 live births (year 2000). National Maternal and Child Health Center (NMCHC) was renovated by Japan’s grant aid in year 1997. One of the roles of NMCHC is to provide care as a tertiary referral hospital. Our aim in this study is to show the obstetric care situation and how to improve maternal health in Cambodia.

Methods: Twenty percent of women who gave birth in the NMCHC in 2001 were randomly selected from patients’ registration, and data on patients’ characteristics, complications during pregnancy and childbirth, and provided obstetric care were collected from medical documents.

Results: The data were collected from 1206 cases out of 6471 deliveries in 2001. 68.2% of the cases came from the capital city at which the NMCHC is located. There was a significant difference in proportions of caesarean section between the women came from the capital and those who came from other areas (8.5% vs 13.3%, p<0.05). Significant differences in proportions of complications during pregnancy, childbirths and newborns were also observed between the two regions: preeclampsia (5.6% vs 8.6%, p<0.05), eclampsia (0.4% vs 1.8%, p<0.01), hemorrhage (2.2% vs 7.3%, p<0.001), low birth weight (11.0% vs 16.3%, p<0.01), and stillbirth (15.5% vs 7.8%, p<0.001).

Conclusion: These findings may suggest that the women who live outside the capital have less opportunity to receive appropriate obstetric care services, such as early diagnosis, treatment and referral for their complications during pregnancy and childbirth. There could be lack of knowledge, low socio-economic status, and shortage of human resources and health facilities in rural area. Therefore, it would be recommended that activities of health centers and referral hospitals in rural area should be improved through training, supervision and good communications among all the health facilities.