One health approaches to zoonotic diseases: MERS, HPAI and AMR

One health approaches, ‘One health, one medicine’, have been globally recognized to control zoonotic diseases. World Organization of Animal Health (OIE) has reported 60% of human pathogens are animal origin and more than 75% of emerging animal diseases are zoonoses. This means collaboration and cooperation between animal and human medicine together can only solve the problem. Recent huge outbreaks of HPAI and MERS in Korea have been pay more attention to implement one health approaches in practice. Minimizing Antimicrobial Resistance (AMR) is global concern and each country and international organization including WHO, OIE, FAO and Codex establish collaborative task forces to challenge these problems. The concern that the use of antimicrobials in animal and human can increase the risk of selection of antimicrobial resistant bacteria may cause failure of treatment. Although the prevalence of zoonotic antimicrobial resistant bacteria in food animals is maintained still low, some bacteria show similar or identical resistant genotypes with those of the human isolates. Therefore, the risk management interventions should be urgently implemented. A “One health” approach is to minimize the antimicrobial resistance in humans and animals need collaboration among the responsibility of all three parts: human health, animal health and environmental health communities. Surveillance of antimicrobial usage and resistance provides important data for the identification of resistance problems and contributing factors for the development and spread of resistance at a national and local level. Through the painful Korean experience of these zoonotic diseases and global challenge to AMR brings us to establish the effective preventive method and early diagnosis as critical control strategies. Prevention and control of infections is essential in fighting antimicrobial resistance. Thus, to minimize infections in animal and human and to decrease the volume of antimicrobials used, collaborative efforts should be implemented to improve animal and human health.

Biography
Yong Ho Park has achieved his DVM and MS at College of Veterinary Medicine, Seoul National University, South Korea. In 1991, he has obtained his PhD in Veterinary Microbiology at Washington State University, USA. He has honored as Fellow at Korean Academy of Science and Technology. From 2011 to 2014, he has worked as a Commissioner at the Animal, Plant, Fisheries, Quarantine and Inspection Agency, South Korea. He is currently a Commissioner of Korea BioMAX Institute at SNU and appointed as a Chair of CODEX AMR T/F 2017-2020 Korea.

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