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第328回松本歯科大学大学院セミナー

日 時: 2015年7月21日(火) 16時45分~17時30分

場 所: 実習館2階 総合歯科医学研究所セミナールーム

演 者: 栗原 徳善 氏(インディアナ大学・教授)

タイトル: Contributions of the measles virus nucleocapsid gene and the SQSTM1/p62(P392L) mutation to Paget's disease. (Paget's 病に対する麻疹ウイルスの外被タンパク質と SQSTM1/p62(P392L)変異の寄与)

Paget's disease (PD) is characterized by abnormal osteoclasts (OCL) that secrete high IL-6 levels and induce exuberant bone formation. Because measles virus nucleocapsid gene (MVNP) and the p62(P392L) mutation are implicated in PD, marrows from 12 PD patients harboring p62(P392L) and eight normals were tested for MVNP expression and pagetic OCL formation. Eight out of twelve patients expressed MVNP and formed pagetic OCL in vitro, which were inhibited by antisense-MVNP. Four out of twelve patients lacked MVNP and formed normal OCL that were hyperresponsive to RANKL but unaffected by antisense-MVNP. Similarly, mice expressing only p62(P394L) formed normal OCL, while mice expressing MVNP in OCL, with or without p62(P394L), developed pagetic OCL and expressed high IL-6 levels dependent on p38MAPK activation. IL-6 deficiency in MVNP mice abrogated pagetic OCL development in vitro. Mice coexpressing MVNP and p62(P394L) developed dramatic Paget's-like bone lesions. These results suggest that p62(P394L) and IL-6 induction by MVNP play key roles in PD.

担当:硬組織疾患制御再建学講座 小出 雅則