



Figure 4: Activation of osteoclasts is independent of changes in convexity of the cortical bone. 100 cN static force was applied perpendicular to hemimaxilla expanding the palate (increasing the convexity in buccal cortical plate), or constricting the palate (decreasing the convexity of buccal cortical plate). Histological sections were taken in area of buccal cortical plate of second molar. TRAP staining was performed on 14 days sections to identify osteoclasts. Application of static forces toward the cortical plate and periosteum (A) or in opposite direction (B), both stimulate osteoclasts activation in the periosteum. Black arrows show the direction of the force. Application of 100cN static force to posterior teeth stimulate TRAP-positive cells not only in periosteum but also in endosteum (C). Section includes bone in the area of second molar extending from suture to lingual cortical plate. TRAP staining shows day 14 of the static group. Osteoclasts activation was observed in suture, endosteum of palate and in the tension side of PDL.