



**Figure 2: Static forces increase the number of osteoclasts in periosteum.** In response to application of 100cN static forces osteoclasts number and activity increased significantly in the periosteum of the buccal surface of alveolar bone. Immunohistochemistry for TRAP was performed in paraffin sections to identify active osteoclasts in the area shown in this image (A). Light microphotographs show TRAP-positive osteoclasts in the surface of cortical bone at different time points osteoclasts are stained as dark red cells (arrowheads in B, magnification 20X). Mean numbers of osteoclasts at different time points (B), were defined as TRAP-positive cells on the surface of cortical bone of maxillary alveolar bone between the mesial border of the mesial roots of the first molars and distal border of the distal roots of the second molars as shown in the dashed box in A. Each value represents the mean  $\pm$  SD of five animals (C). \*Static group significantly different from sham,  $p < 0.05$ .