

bone, he has found the lumen of the tube invaded by osteoblasts, and osseous islands laid down. In one interesting case, a traumatic aneurysm formed from the brachial artery of a young patient in consequence of the penetration of the vessel by a spicule of the humerus, which was fractured. Osteoblasts washed out of the humerus were thus distributed throughout the clot lining the aneurysm, and it developed a regular bony wall. This would probably occur more frequently when the aorta erodes the vertebræ, but for the fact that in that case the patient's osteoblasts are usually senile.

In some experiments, after removing a length of the radius with its periosteum, the gap was filled with bone chips. Consolidation took place, but a large tumour-like mass of callus formed, infiltrating the surrounding muscles. The osteoblasts from each chip had wandered out and proliferated, and when they became mature had surrounded themselves with calcareous deposit, which bound together not only the detached fragments and the broken ends, but also the muscles and tendons in the neighbourhood.

The factors which induce bone-corpuscles to become active and proliferate are not perfectly understood. Macewen lays stress on relief from pressure, and no doubt this has great importance. Dissemination of osteoblasts by increased vascularity of the part is another factor. The periosteum, when intact, limits the osteoblasts to their own proper sphere, and prevents their encroaching on the muscles and fascial planes.