**Osteoinsulosis disseminata**

A benign bone condition of disseminated enostoses

Hans-Georg Zmierczak, Charlotte Verroken

Unit for Osteoporosis and Metabolic Bone Diseases, Ghent University Hospital, Ghent, Belgium

---

**INTRODUCTION:**

Enostosis or bone island is a common incidental finding. These benign developmental lesions represent foci of cortical bone embedded within the trabecular network of cancellous bone. They are usually solitary, may be found in any bone but skull involvement is unusual.

---

**CASE REPORT**

We saw a 49-year old woman with disseminated spinal lesions on CT and MRI scans which had been suspected to be osteoblastic metastases. She had surgery and radiation therapy for bilateral breast cancer in 2011 and took tamoxifen. Her general condition was good and she had no axial complaints.

CT scans showed numerous osteodense circular or ovoid lesions with speculated margins and normal surrounding bone in the spine, sternum, clavula, humerus, ribs, clavicles and pelvis.

The lesions were hypointense on STIR and T1-weighted MRI images and were surrounded by normal signals.

Cortices were intact. Bone scintigraphy, tumor markers and calcium metabolism were normal. Extensive imaging did not detect extra-skeletal metastases.

A cervical and thoracic spine MRI, performed in 2009 for neck complaints showed the same lesions, unchanged to current images. X-rays taken in 2012 for joint complaints showed bone islands round the elbows and in the hands. The suspicion of osteoblastic metastatic disease was rejected.

**CONCLUSION**

We present a not earlier described skeletal condition which we name **osteoinsulosis disseminata**.

This benign condition consists of numerous bone islands diffusely spread throughout the skeleton. The single lesions have the typical imaging characteristics of enostosis.

Osteoinsulosis disseminata differs from osteopoikilosis by the presence of numerous lesions in the axial skeleton and by the scarceness to absence of longitudinal bone lesions. Bone scintigraphy is helpful to distinguish this benign condition from osteoblastic metastatic disease.