

# Malignant Disease in Patients with Hypertrophic Osteoarthropathy – A Retrospective Case-Study from a Tertiary Center

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**Abstract:** Introduction: Hypertrophic osteoarthropathy (HOA) is a rare condition characterized with clubbing fingers on hands and feet and with typical radiological finding of periostitis on long tubular bones. Primary HO is of unknown etiology while secondary HO is closely associated with malignant disease. The aim of this study was to determine the association between HO and malignant disease and features of secondary HOA from the database of a single tertiary rheumatology center.

Methodology. Fifty patients diagnosed with HOA were recorded in the database of the Division of Adult Rheumatology of the Department of Rheumatology, Physical Medicine and Rehabilitation UHC Sestre Milosrdnice in Zagreb (Croatia) from January 1998 to July 2015. Thirty eight were diagnosed having primary HOA while twelve had secondary HOA, the latter being associated with malignant disease. Following data were analyzed in patients with secondary HO: gender, age of secondary HO diagnosis, time elapsed between the onset of the symptoms and diagnosis and predominant clinical features. Clubbing fingers were described by the rheumatologist, while a radiologist described typical radiographic findings on long tubular bones.

Results. Among 12 patients with secondary HOA there were 7 men and 5 women, aged  $56.6 \pm 11.2$  years (37-78 years). Mean time duration between the onset of first symptoms and the diagnosis was  $4.9 \pm 4.1$  months. Typical clubbing fingers on hands were observed in 9 patients and clubbing finger on feet in 10 patients. Migratory pain was the main clinical complaint in all patients. Seven patients reported fatigue, feverishness episodes and loss of body weight. Lung tumor was a primary site in 9/12 patients and in remaining 3 patients metastases in the lungs were present. Primary sites of the latter were breast cancer and cervical cancer respectively, while in the third patient the primary site remained unknown.

Conclusion. In our case-series of 12 patients, malignant disease was found to be the underlying cause of secondary HOA, with clubbing finger on hands and feet as the most predominant symptoms. Therefore, rheumatologist should always perform a thorough examination in patients with HOA in order to either confirm or exclude malignant disease.

**Key words:** osteoarthropathy, hypertrophic; disease, malignant