

## Ankylosis of limb joints in a medieval cemetery from Bátmonostor, Hungary

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With 6 figures and 1 table

**Summary:** Bony ankylosis of articulations is a rarely described alteration in the palaeopathological literature. This study presents 30 cases of ankylosis among 426 skeletons of the cemetery Bátmonostor (Southern Hungary) from middle ages. The material comprised four cases of knee, one case of hip, eight cases of tibio-fibularis joints and eight cases of metatarsals and tarsalia, two cases of malleolar joint, one case of wrist, four cases of sternoclavicularis, one case of carpo-metacarpal and one of radio-ulnar ankylosis. All individuals with joint fusion are adults, mostly between 41 and 60 years or over 60 at death. Two thirds of cases are male. The most interesting cases are briefly described.

**Key words:** ankylosis, medieval cemetery, Hungary.

### Introduction

The failure of normal joint function following contractures and ankylosis from any cause produces disability by interfering with daily living activities and by restricting locomotor function. Little information exists in the literature (both contemporary and palaeopathological) quantifying the extent of disability in relation to etiologic factors, degree of contracture or various other parameters. The lack of early detection and intervention in historical times results in grossly altered joint function. The topographic (anatomical) distribution of ankylosis varies from country to country. We only found one survey of disabled persons from India (Mukherjee & Mokashi 1987), where the most frequent diagnosis was the ankylosis of knee and hip joints (28–28%) and ankle (24%). In Medieval times, infections (such as osteomyelitis or purulent arthritis) as well as fractures were common in both rural and urban areas. According to literature, the osseous ankylosis of the joints is not common either in recent nor in archaeological material (Derums 1978, Duric et al. 2004, Knüssel & Göggel 1993). However, among 426 skeletons from the cemetery of Bátmonostor (Southern Hungary) we found 30 cases of joint fusion, except for vertebral and sacroiliacal ankylosis. In this paper, we describe pathological and radiological findings, as well as the aetiology of knee, hip and other joints' ankylosis.