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A CASE OF SPONDYLOARTROPATHY IN A MEDIEVAL MALE FROM SERPA

ABSTRACT: A male individual exhumed from a medieval necropolis (13th to 16th centuries) at Serpa (south of Portugal), in February 1999, with around 50 years of age at the time of death, stands out as a paleopathological example because of its numerous and various pathologies.

The paleopathological analysis of his skeleton revealed a spondyloarthropathy, possibly a case of Reiter's Syndrome, evidenced by ankylosis at the vertebral and sacroiliac levels, as well as an exuberant ossification of the xifoid appendix. The individual shows severe lesions of osteoarthritis as well as generalised enthesopathies.

Concerning traumatic injuries, the individual has fractures in several ribs, with intercostals ossifications. A predisposition to calcification is suspected on the basis of the exuberant calcifications observed.

Moreover this male individual also presents skeleton indications of gout, which is here discussed among other aetiologies.

PALABRAS CLAVE: Medieval, spondyloarthropathy, Reiter's Syndrome, trauma, ossification.

INTRODUCTION

From July 1998 to July 1999, a group of archaeologists and anthropologists proceeded to the exhumation of 101 skeletons from the Loteamento da Zona Poente de Serpa (south of Portugal). This necropolis has been used between the 13th and 16th centuries.

This report presents the results regarding the paleopathological analysis of a 50 year old male exhumed from this medieval necropolis.

The importance of this individual is due to the fact that he stands out as a paleopathological example because of its numerous and various pathologies.

MATERIAL AND METHODS

The paleobiological and paleopathological analysis was done by the authors of this paper.

For the sex and age at death determination, the Recommendations for age and sex diagnoses of Skeletons (Ferembach, 1980) was used.

Each bone was observed macroscopically in the attempt to identify any possible pathology and x-ray analysis was performed to clarify any eventual traumatic evidence.

RESULTS

Spondyloarthropathies are a group of inflammatory arthropathies, which also affect the entheses. Thus the inflammatory process involves the ligaments insertions as well as the internal structures of the joints (Rogers & Waldron, 1995).

This individual revealed a spondyloarthropathy, possibly a case of Reiter's Syndrome, evidenced by the ankylosis at the vertebral and sacroiliac levels.

The physical constraint provoked by the sacroiliac ankylosis is the most probable aetiology of the generalised osteoarthritis presented as well as the severe forms of enthesopathy observed, particularly in the *ischium*.

Concerning traumatic injuries, the individual presents fractures in several ribs, with intercostal ossifications.

Furthermore, a predisposition to calcification is suspected on the basis of the exuberant ossifications as well as an excessive growth of the xifoid process.

Gout is caused by an inflammatory response to the deposit of crystals of uric acid in the joint tissues. The deposition of crystals is secondary to high uric acid levels in the blood (hyperuricaemia) which may be due to genetic or environmental factors.

The classical joint for the disease is the first metatarsophalangeal (MTP) joint but other sites may also be affected (Rogers & Waldron, 1995)

The analysis of this skeleton revealed a lesion in the first MTP joint, very similar to the typical appearance of this disease. Moreover the x-ray shows that the lesion has sclerotic, overhanging margins and that there is no significant osteoporosis associated.

FINAL COMMENTS

It seems that the traumatic lesions in the ribs, with consequent intercostal ossifications, lead to severe osteoarthritis in the opposite upper limb.

A more conclusive diagnosis was unattainable due to the inexistence of some bones of the hands and feet, that would sustain the hypothesis of Reiter's Syndrome

However, it is clear that this particular individual stands out as a paleopathological example.

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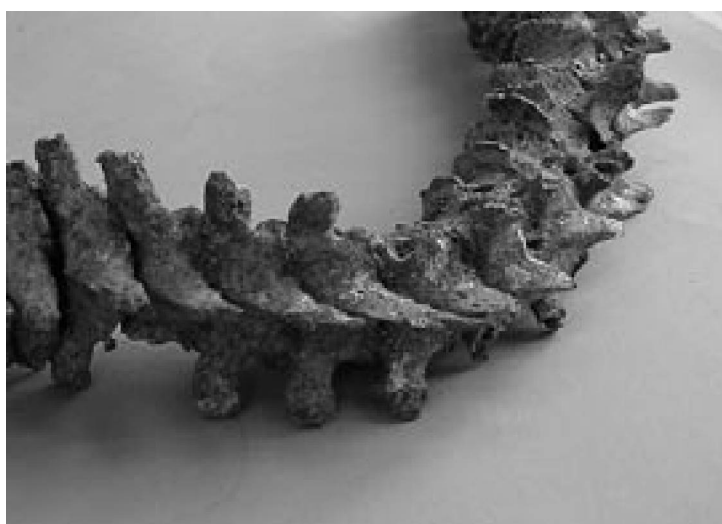


Figure 1. Argumento de modificador desconocido. Ankylosis of the 2nd to the 6th thoracic vertebrae.



Figure 2. Left os coxae with excess bone formation leading to fusion of the sacro-iliac joint.

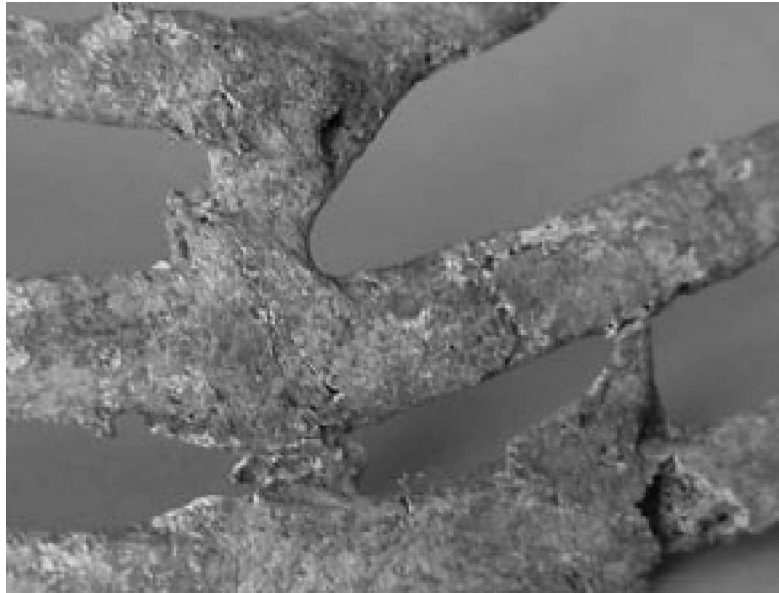


Figure 3. Intercostal ossifications in the 2nd to 4th ribs.

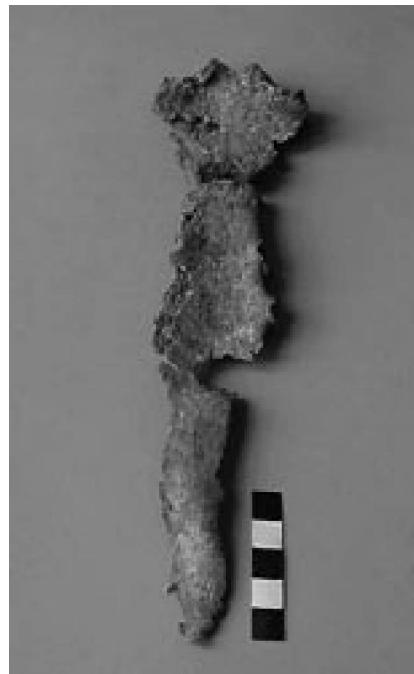


Figure 4. Exuberant ossification of the xifoid process.



Figure 5. Severe enthesopathy in the ischial tuberosity.



Figure 6. First proximal phalanx with extensive marginal erosions.



Figure 7. X-ray of the first proximal phalanx with sclerotic margins, typical of gout.