MULTIPLE TRAUMA IN A MEDIEVAL MALE
FROM SERPA (PORTUGAL)

RESUMEN: En Abril de 1999, durante la excavación de una necrópolis medieval (siglos XII - XVI) en Serpa (sur de Portugal), fue exhumado un individuo de sexo masculino, con una edad aproximada en el momento de la muerte de 40-44 años.

El análisis paleopatológico de este esqueleto ha revelado signos de heridas en el tórax y miembros superiores, junto a una fractura de Colles y a un aplastamiento de una vértebra lumbar. Como patología asociada se ha identificado entesopatías generalizadas y artrrosis avanzada.

El individuo presentaba además, señales de reacción ósea a nivel de los miembros inferiores, proponiéndose la patología infecciosa como posible etiología.

La importancia de este trabajo se basa en la posibilidad de discutir el tema de la violencia interpersonal para el cual el análisis paleopatológico de heridas y traumas se revela de vital importancia.

PALABRAS CLAVE: Medieval, traumas, violencia.

ABSTRACT: In April 1999, during the excavation of a medieval necropolis (13th - 16th centuries) at Serpa (south of Portugal), a male individual with around 40-44 years at death was exhumed.

The paleopathological analysis of this skeleton revealed various indications of injury at the thorax and upper limbs.

A Colles' fracture and a collapsed lumbar vertebra will be mentioned. Associated to these injuries have several signs of osteoarthritis as well as generalised entesopathies.

Moreover, the individual presents various indicators of bone reactions in the lower limbs. Infectious pathology will be here discussed among other aetologies.

The importance of this paper is based on the attempts to discuss inter-personal violence which a paleopathological analysis of injuries and trauma became vital importance.

KEY WORDS: Medieval, injury, violence.

INTRODUCCIÓN:

The intervention of the group of archaeologists and anthropologists from Coimbra University took place between July of 1998 and July of 1999 in an area of 535 m² at Loteamento da Zona Poente de Serpa (south of Portugal) (1).

During the excavation were exhumed 101 skele-
tons (80% of the total sample were non-adults).
The results obtained by radiocarbon dating analysis revealed that this necropolis had probably been used between the 13th and 16th centuries (2).
In April 1999, during the excavation of this medieval necropolis, a male individual with around 40-44 years of age at time of death was exhumed.

The morphological and paleopathological analysis of the skeleton revealed various indications of injury in thorax and upper limbs.
It is our purpose to present an injury observed on the male identified as LZPS98 E.44 that can eventually be associated to his labour or a case of inter-personal violence.

THE INDIVIDUAL - LZPS98 E.44

Apart from the skull, vertebrae and ribs, the skeleton was very well preserved (Figure 1).
This male (3) with an age at death between 40 and 44 years was buried in an extended position with his head resting to the left and the upper limbs extended with the hands over the pelvis.

Concerning funerary anthropology, we can mention that the individual was inhumed in a rectangular grave with anthropomorphic basis. The skeleton was in dorsal decubitus and shows an East-West orientation, with their head to the West.

His estimated stature (4) was around 159.29 +/- 6.90 cm.
The most important pathologies observed among the study will be describe.

Shoulder Girdle:
The severe osteoarthritis (OA) in both shoulder girdles, mainly in the acromio-clavicular joint (Figure 2) suggests that it occurred as a consequence of physical constraints of the upper limbs. Probably this constraint is due to several traumas identified in the individual, such as Colles' fracture, vertebral collapse and fractures in many ribs that we will describe.

Right Radius:
The presence of a callus in the distal third of the right radius shaft (Figure 3a) indicates a traumatic incident. A diagnose of a Colles' fracture is proposed. This trauma is an example of shearing trauma resulting from the individual's reaction of stretching the arm to minimize the impact.
The reaction is a fracture in which the distal end of radius is sheared off and displaced backward (5).

The X-ray analysis (Figure 3b) didn't allow the identification of a fracture line associating this with the exuberant secondary OA, we could indicate that the trauma happened a long time ago.

Ribs:
Because of taphonomic agents, the only material available in laboratory were a few ribs fragments.
The macroscopic observation revealed some taphonomic depressions on the right ribs and a formation of new bone in the left ribs (Figure 4a).
The X-ray (Figure 4b) analysis led us to suppose that the individual had suffered a trauma in the thorax, which affected the left ribs.
Due to high level of bone remodelling and the absence of fracture's line is suggests that we're in presence of an old trauma (like in right radius).

Lumbar vertebrae:
A compression fracture was identified in the 2nd lumbar vertebra (Figure 5) with consequent formation of marginal osteophytes in adjacent vertebra. Moreover, the individual shows an asymmetric OA in the articular facets, more evident in the right side. Furthermore, there is an L1 and L2 articular facets ankylosis.

Lower limbs:
The analysis of the lower limbs allowed the identification of several non-specific infections areas. The infectious patterns in all cases are longitudinal striation.
In the femurs (Figure 6a) and fibulae (Figure 6b) the infection were located in the distal third of the shaft, while in the tibiae (Figure 6c) both lateral and medial surfaces were affected (6).

FINAL COMMENTS

The healed appearance of the fractures led us to advance that we're in presence of an old traumatic event and their appearance suggest that they probably resulted from the same incident like a fall.
Colles' fracture and the damage into the ribs could probably be the consequence of a fall, however osteoporosis can't be completely discarded as the etiological factor of the collapsed vertebra.

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REFERENCES

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2. [Beta – 151126 570 +/- 80 BP Cal AD 1280 to 1460 (Cal BP 670 to 490) (2 sigma)]
   [Beta – 151127 450 +/- 60 BP Cal AD 1400 to 1520 (Cal BP 550 to 430) and (Cal BP 380 to 320) (2 sigma)]


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Figure 2. Osteoarthristis on the acromio-clavicular joint.

Figure 3a. Bone callus at the distal end of right radius.

Figure 3b. X-ray of right radius.
**Figure 4a.** Bone callus in ribs.

**Figure 4b.** X-ray of left ribs.

**Figure 5.** Compression fracture of a vertebra (L2).
Figure 6a. Non-specific periosteal lesion in femurs.

Figure 6b. Non-specific periosteal lesions in fibulae.

Figure 6c. Non-specific periosteal lesions in tibiae.