ogy and Forensic Osteology of University of Bologna conducted an anthropological study on a sample of 130 individuals. This contribution aims to present four possible cases of venereal treponematoses (TT. 91, 136, 170, 187).

Human skeletal remains of graves 91, 136, 170, and 187 were examined to reconstruct the biological profiles and to conduct paleopathological and tomographic analyses, given the presence of lesions on several anatomical districts. Cranial lesions were present on individuals from TT.91 (M, 25-35 years), 170 (M, 25-35 years) and 136 (M, 15-18 years), in which simultaneous destructive and proliferative processes (caries sicca) with focal destruction and remodeling of the external surface and diploe are denoted. Long bones of these three individuals also present osseous alteration such as gummatous osteoperiostitis, with an increased bone density and non-uniform thickening. Individual of T. 187 (11-12 years) presents a hole (3 cm Ø) located on frontal bone, whose margins are remodeled with proliferative processes both on ectocranial and endocranial sides. These lesions are likely linked to treponematosis (bacterial infection by Treponema), interpreted as venereal syphilis. After differential diagnoses, we suppose the individuals of TT. 91 and 170 were likely affected by an advanced stage of the infection, while individual T. 136 seems to have been affected by a tardive congenital form of the disease. Lesions of individual of T.187 suggest an infective origin, but poor bone preservation prevents a clearer interpretation. These cases of treponematosis, possibly linked to venereal syphilis, are relevant for paleoepidemic aspects, as well as contributing to only few Italian osteological cases dating to the same period.

A probable case of spinal tuberculosis. The 18th-20th century concealed body of Azzio, Varese, Northwestern Italy

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Spinal tuberculosis (STB) is a well-known disease in paleopathology. Paleopathologists have highlighted in the last decades some morphological criteria for its diagnosis. Commonly, we are witnessing the destruction of the intervertebral disc space and the adjoining vertebral bodies, the collapse of the vertebrae and the anterior wedging which lead to a structural kyphosis classifiable in gibbus deformity. Here we present the probable STB case of a male subject, 55 years, concealed between the 18th and the first half of the 20th century in the Franciskcan monastery of Azzio, Varese, Italy. The skeleton was found both in an optimal state of preservation and representation. Anthropological analysis was performed according to Buikstra and Ubelaker standards. Paleopathological diagnosis was conducted thanks to macroscopic, microscopic and radiographic analysis, also in order to perform the differential diagnosis. Even if STB was widely present in the last centuries in northwestern Italy, only few paleopathological cases was directly studied.

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Cystic echinococcosis of 13th century from the abbey of Badia Pozzeveri, Lucca

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Cystic echinococcosis (CE) is a zoonosis caused by Echinococcus granulosus. The life cycle of the parasite develops in the canids, which house the adult tapeworm in the intestine, and in the intermediate mammal hosts. Humans are occasional dead-end hosts, infected by eggs ingestion via fecal-oral route. The larvae from the digested eggs penetrate the human gut wall and are disseminated throughout the body by the blood. The soft tissues involved at the level of the capillaries may host the larvae, and the hydatid cyst can develop in different organs. The liver is the first organ that the larvae encounter through the blood stream and consequently it is the most frequently involved; it is followed by the lungs and then other organs in frequency.

The hydatid cyst is a fluid-filled formation that grows

Figure. Hydatid cyst from a 13th century burial of the Abbey of Badia Pozzeveri, Lucca.

centrifugally and that can survive in the intermediate host for years. In 10 years, it can growth to a diameter of 15-20 cm. Inside hyaline outer membrane, a cellular germinating layer produces microcystic structures that develop scolices. The scolices pouring out of the cyst develop one or more cysts that can reach every tissue. The life cycle is completed when the definitive host feeds on organs of the intermediate host that contain fertile metacestodes. Death of the germinating layer within the metacestode produces calcification of the cyst wall in the intermediate host.

Calcified hydatid cysts found as archaeological finds are generally associated with skeletal remains in the thoraco-abdominal site. In archaeological records, the presence of echinococcosis is underestimated, and the find is relatively rare for different reasons: 1) difficulty of recognition by archaeologists; 2) need of accuracy in excavation and recovery of osteoarcheological remains; 3) fragility of calcified formation in the soil. Furthermore, the taphonomic alterations can cause the translation from the original site of the calcified formation and undermine the recognition of the organ affected.

In Italy there are only two archaeological samples of calcified formation, most probably of echinococcosis origin, described in the paleopathological literature: one from Siena (13th-14th centuries) and one from Abruzzo (early 20th century). In this report we describe another calcified formation found in the archaeological excavation of the monastic site of Badia Pozzeveri, near Lucca, Tuscany, for which we propose a diagnosis of CE.

This finding comes from a privileged lithic coffin built on the northern side of the monastic Church of San Pietro. The grave was used in the 13th century as collective burial by the same laical family group. Calcification, associated with a female individual of about 35-45 years, was discovered in the thoraco-abdominal region. We propose the diagnosis of hydatid cyst from Echinococcus granulosus based on gross morphology, micro-morphology, and a multicomponent approach with cone beam computed tomography, SEM/EDS and stable isotope analysis.

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A possible case of biparietal osteodystrophy from the medieval church of Sant'agostino, Caravate, Varese (Northwestern Italy)

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Biparietal osteodystrophy (BO), with symmetrical and bilateral thinning of the parietal bones, is a condition rarely discussed in the paleopathological literature. In the past, it has been described as a non-metric trait, anatomical variation and development anomaly. Even though the aetiology is still unknown, today it is described as a pathological condition. In many individuals it appears to be age-related, therefore it has been attributed to osteoporosis, postmenopausal and senile atrophy. Other causes could be congenital and hereditary transmission. Here, we presented a possible case of BO, detected on the remains of a 50-years-old female subject (Tomb 8) excavated in the cemeterial area of the medieval church of Sant'Agostino in Caravate (Varese). Anthropological analysis was performed in accordance with the standards proposed by Buikstra and Ubelaker. Pa-