

## **Leprosy in the Pisan fresco “Triumph of Death” (1336-1341)**

Fornaciari A., PhD<sup>a</sup>, Gaeta R., MD<sup>a</sup>, Giuffra V., PhD<sup>a</sup>

*<sup>a</sup>Division of Paleopathology, Department of Translational Research and New Technologies in Medicine and Surgery, University of Pisa, Italy*

Address correspondence to:

Antonio Fornaciari, Division of Paleopathology, Department of Translational Research and New Technologies in Medicine and Surgery, University of Pisa, Via Roma 57, 56126 Pisa, Italy.

tel.: 0039 050 992894; fax: 0039 050 992706

e-mail: antoniofornaciari77@gmail.com

### **Abstract:**

The Italian masterpiece “Triumph of Death”, a big fresco of the Monumental Cemetery of Pisa dating back to the years 1336-1341, shows the first realistic representation of leprosy of Western art. In this note, we discuss the iconography of the disease and its meaning.

**Keywords:** history of medicine; iconodiagnostics; Late Middle Ages; leprosy

**Funding:** none.

**Declarations of interest:** none

**Authorship:** All authors had access to the data and played a role in writing this manuscript.

**Type of Manuscript:** Medical Humanities

In current times leprosy is a disease widespread especially in the tropical and sub-tropical environments of developing countries (Suzuki et al. 2012), where it still represents a relevant public health problem. However, in the past this disease also involved the European territory. During the 12-14<sup>th</sup> centuries, leprosy had a remarkable diffusion in the Western World at the time of Crusades. The large number of leprosaria founded almost all over Europe, and the osteoarchaeological cases of leprosy, are eloquent evidences of the well-established presence of the disease in late Medieval Europe (Larsen 2015). Although leprosy is characterised by a low grade of infectivity, in Medieval collective imagery its deforming impact on the body raised terror and repugnance towards the patients affected. Lepers were a sort of living dead, considered unclean or morally corrupt by Medieval society. They had to wear special clothes, to carry a bell announcing their presence, and they were segregated in leprosy houses outside the urban centres (Covey 2001).

Leprosy, or Hansen's disease, is a chronic infection caused by *Mycobacterium leprae*, characterised by involvement of skin, mucous membranes, and nerves. The disease has been classified into a number of clinical types, the most severe of which is its lepromatous form, in which the immune response is poor. Transmission occurs through the airborne spread of nasal secretion.

The organism has a predilection for the cooler parts of the body and, therefore, the most affected regions are the nose and the extremities. The result is deformity of the face with resorption of the nasal cartilage and loss of sensory perception in the fingers and toes. Peripheral anaesthesia can lead to the atrophy of muscle activity with resorption of the tubular bones of hands and feet, which can eventually fall off for secondary infections or involuntary trauma. Lesions can also affect the conjunctivae, causing keratitis, iridocyclitis, up to blindness (Ridley, Jopling 1966).

Medieval iconography is not exempt from representations of lepers which, even so, are generally very stereotyped, with the disease simply symbolised through dots spread over the body (Boeckl 2011). However, a famous Tuscan fresco of the first half of the 14<sup>th</sup> century offers the first realistic representation of the disease (Fig. 1).

The “Triumph of Death” of the Monumental Cemetery of Pisa, a pictorial masterpiece of Italian Medieval art dated back to the years 1336-1341, is attributed to Buonamico Buffalmacco (Bellosi 1974). In the fresco, which occupies a wall of 5.6 x 15 m, the author follows a pictorial address characterised by expressionist realism. In the centre of the scene Death, personified in a sort of winged demon with bat wings and sickle, and about to invest a group of wealthy young people on the right, totally ignores a bunch of beggars on the left of the fresco, who invoke her as the liberation of their sorrows. A cartouche, almost a comic, gives voice to the group of beggars, who thus reproach the Grim Reaper: “As prosperity has left us, oh Death, medicine of all evil, come and give us the last supper”.

Among the group of beggars who invoke death as extreme consolation to their disasters, the figure of a leper is clearly defined, appearing as an individual with the typical *facies leprosa*. The man shows atrophy of the nasal region where the nasal cartilage is totally lacking, and probably blindness, since the eye is without the pupil and seems obscured. The upper limbs, stretched towards Death, appear as two stumps totally deprived of the hands at the level of the wrists. Another beggar in the group appears blind, with his eyes covered by a bandage, and his right hand reduced to a stump, wrapped in a rag closed by a string at the wrist. It is in both cases the iconographic description of a rather typical and advanced stage of the pathology.

Leprosy constitutes a sort of archetypal disease for the Medieval world; the leper is seen as a shameful being, struck by a disease that is a kind of divine curse. In the case of Pisa, we observe a didascalical representation, like a figurative sermon that fits well with the search for greater realism aimed at impressing the observer: in the fresco the leper is the exemplar model of the sinner (Frugoni 1988).

The remarkable fact that distinguishes the lepers of the cemetery of Pisa is, indeed, the highly realistic style of representation for the first time so accentuated in Western art, as the result of a probably direct observation of the disease, and not a stereotyped figuration, as Medieval art has usually been up to that time.

## References

Bellosi L. *Buffalmacco e il Trionfo della Morte*. Torino: Einaudi; 1974.

Boeckl CM. *Images of Leprosy. Disease, Religion, and Politics in European Art*. Truman State University Press; 2011.

Covey HC. People with leprosy (Hansen's disease) during the Middle Ages. *The Social Science Journal* 2001; **38**: 315-321. Doi: 10.1016/S0362-3319(01)00116-1

Frugoni C. Altri luoghi, cercando il Paradiso (Il ciclo di Buffalmacco nel Camposanto di Pisa e la committenza domenicana). *Annali della Scuola Normale Superiore di Pisa. Classe di Lettere e Filosofia*. Serie III 1988; **18**(4): 1557-1643. <http://www.jstor.org/stable/24307596>.

Ridley D, Jopling W, Classification of leprosy according to immunity. A five-group system. *Int J Lepr Other Mycobact Dis*. 1966; **34**:255-73.

Larsen CS, *Bioarchaeology. Interpreting Behavior from the Human Skeleton*, Cambridge University Press; 2015.

Suzuki K, Akama T, Kawashima A, Yoshihara A, Yotsu RR, Ishii N. 2012, Current status of leprosy: epidemiology, basic science and clinical perspectives, *J Dermatol*. 2012; **39**(2): 121-9. Doi: 10.1111/j.1346-8138.2011.01370.x. PMID 21973237.

## Figure captions

Fig. 1: "The Triumph of Death" of Buonamico Buffalmacco in the Monumental Cemetery of Pisa (years 1336-1441). Particular of the group of beggars with two lepers [The photographic reproduction is taken from the photo library of the Federico Zeri Foundation].