

The impact of animal products on health maintenance and disease treatment in Al-Andalus during the Middle Ages

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Abstract:

The fields of medicine and pharmacy are considered to be among the most esteemed and important sciences in Al-Andalus. During the Middle Ages, the people of Al-Andalus showed great interest and attention to medical science. Andalusian doctors benefited from the diverse nature of their region, which was rich in animals with medicinal properties and beneficial effects on humans. They adopted and used these animals as appropriate treatments for many diseases. The Andalusians studied these animals and recognised their important medical benefits. A prime example is the work of the scholar and physician Ibn al-Baitar al-Malaqi (d. 1248 A.D.) in his book *Al-Jami' li-Mufradat al-Adwiya wa al-Aghdhiya*, where he provides a detailed description of all the treatments derived from animal products and their role in treating various diseases in Al-Andalus.

Keywords: medicine; treatment; diseases; animals; Al-Andalus

INTRODUCTION

Livestock has been considered one of the most important resources used by man since ancient times. It is the second most important element for food security after plant resources, and it is a renewable resource that can regenerate itself through natural reproductive processes. In Andalusia, the use of these animal resources has attracted a great deal of attention from specialists, including doctors and agronomists, especially since this area includes both terrestrial and marine resources, characterised by diversity and abundance.

In this context, the topic of animal resources is often associated with the study of their characteristics, types, harms and benefits. However, this discussion aims to explore benefits that go beyond the usual scope and include the medical field, due to the numerous therapeutic advantages that these animals offer, which specialists in Andalusia have used to treat various diseases.

In this context, this research will try to clarify which animals have medical benefits and what impact their products have on the treatment and maintenance of health.

First: Livestock in Andalusia

Andalusia is known for its rich and varied livestock resources, due to the availability of vast pastures in its lands, which provide a suitable environment for their breeding and shelter. Livestock is also an important economic resource for the inhabitants of Andalusia, as it is a major source of food for the population, either through meat or dairy products, which are indispensable.

In addition, the benefits of these animals go beyond mere consumption and include therapeutic aspects, proving to be very useful in the treatment of various ailments. Among the most important therapeutic animals in Andalusia are:

1. Wild animals

A) Livestock

Grazing and stockbreeding were important aspects of Andalusian agriculture, supported by the abundance of diverse pastures throughout the region. Pastures¹ were often located near major water sources, such as rivers, and livestock farming flourished in Seville, known for its pleasant air, clean water and fertile soil². The rural areas of Shantariya were characterised by extensive pastures and vineyards³. Among the most important livestock we note

Goats:

¹ Al-Qalqashandi, Abu al-Abbas Ahmad: *The Morning of the Wise*, Dar Al-Kutub Al-Ilmiyah, Beirut, Lebanon, 1987, Vol. 5, p. 1233.

² Al-Qazwini, Zakariya ibn Muhammad ibn Mahmoud: *The Effects of Countries and News of the People*, Dar Sader, Beirut, p. 497.

³ Anonymous Author: *History of Andalusia*, edited by Abdul Qadir Bubaya, Dar Al-Kutub Al-Ilmiyah, Beirut, Lebanon, 2007, 1st ed., p. 108.

Goats were an important livestock in Andalusia, especially on the island of Cádiz, where they made up the majority of the herds⁴. The geographer al-Himyari described them as follows: “Most of their cattle are goats... When their goats graze on the carobs of this area during the mating season, their milk becomes intoxicating, which is not the case with sheep’s milk⁵”. The island of Yabasa was particularly noted for goat farming, as al-Zuhri mentioned: “But sheep do not give birth there, only goats do, and they make up the majority of their livestock.”⁶ The island of Mallorca was also known for its goat herds⁷.

Cattle:

Cattle were reared on the extensive pastures scattered throughout various regions of Andalusia. Some geographers⁸ praised the abundance of livestock in the Sharat Mountains, north of Toledo, noting the large numbers of sheep and cattle prepared for trade. None of their cattle was weak⁹; they were all well fed and set a standard throughout Andalusia. The people of Calamaria were renowned for their cattle breeding, and the Mallorcans were also known for their large herds. Al-Zuhri remarked: “They have many cattle...”¹⁰

B) Birds

The Andalusians took advantage of the abundance of birds in their land, whether in the mountains or in the forests, and they actively hunted them for food. Among the birds from which the Andalusians obtained medicines are:

Cranes:

These birds gather in groups and are characterised by their erect, elongated bodies, long legs, slender necks and straight, long beaks¹¹.

Partridges:

⁴- Al-Hamiri, Muhammad ibn Abdul Mumin: *The Fragrant Garden in the News of the Countries*. edited by Ihsan Abbas, Lebanon Library, 1975, 1st ed., p. 448.

⁵- Al-Hamiri: *The Same Source*. p. 448.

⁶- Al-Zuhri, Abdullah ibn Muhammad ibn Abu Bakr: *Geography*, edited by Muhammad Haj Sadik, Religious Culture Library, Port Said, p. 128.

⁷- Al-Zuhri: *The Same Source*. p. 129.

⁸- Al-Idrisi, Abu Abdullah Muhammad ibn Muhammad: *The Delight of the Aspirant in the Exploration of Horizons*, Religious Culture Library, Cairo, 1422 AH, 2002, p. 188; Al-Hamiri: *The Same Source**, p. 394.

⁹- Al-Idrisi: *The Same Source*, p. 547.

¹⁰- Al-Zuhri: *The Same Source*, p. 129.

¹¹- Al-Damiri, Kamal al-Din: *The Life of Animals*, edited and compiled by As'ad Al-Faris, Talas House for Studies, Translation, and Publication, Damascus, Vol. 2, p. 217.

A bird similar in size to a pigeon, speckled like a quail and characterised by its red beak and legs¹². This species was commonly bred in Andalusian households¹³.

Pigeons:

Known for being lighter than chickens and less aggressive, pigeons come in many varieties¹⁴. The Andalusians paid a lot of attention to pigeon-breeding because of its many advantages¹⁵.

Various sources do not specify the areas where these birds were hunted or bred, but make general references to different birds, which are particularly rare. Ibn Said noted the presence of birds in the castle of Jaber, near Seville, and said: “There are many birds in the castle of Jaber.”¹⁶

C) Marine life

The geographical location of Andalusia, with its extensive coastline - one facing the Mediterranean Sea and the other the Atlantic Ocean - has contributed greatly to the country's wealth of marine resources. Many coastal centres in Andalusia have specialised in fishing these resources and using them for medicinal purposes. Among the most important of these marine resources are

1. Sea rabbit: Ibn al-Baitar described it as “a small marine animal, reddish in colour, with parts resembling the leaves of seaweed and a stone in its head”¹⁷.

2. Lobster: This sea creature has a square head, some parts of which are covered with ceramic-like shells, while others are not. It has ten long limbs on either side, resembling large spiders, with two upright slender antennae and prominent eyes hanging from its head¹⁸.

3. Tuna: Al-Zuhri noted that this species of whale, called “tuna”, is caught in Andalusia in a place called Al-Qantabek, before the sea known as the Stone of the

¹²- Ibn al-Baitar, *Diya' al-Din Abu Muhammad Abdullah ibn Ahmad al-Andalusi al-Malqi: The Comprehensive Book of Medicinal and Nutritional Substances*, Dar Al-Kutub Al-Ilmiyah, Beirut, Lebanon, 1st ed., Vol. 2, p. 264; Ibn al-Rasul: p. 67.

¹³- Ibn Hajjaj, Ahmad ibn Muhammad al-Ishbili: *The Concise Book on Agriculture*, edited by Salah Jarrar and Jassim Abu Safiya, Jordanian Academy of Language Publications, Amman, 1402 AH, 1982, p. 78.

¹⁴- Ibn al-Rasul: *The Same Source*, pp. 78-79.

¹⁵- Ibn Hajjaj: *The Same Source*, p. 74.

¹⁶- Ibn Said al-Maghribi: *The Maghreb in the Adornments of the Maghreb*, edited by Shawqi Diaf, Dar Al-Ma'arif, Cairo, 4th ed., Vol. 1, p. 291.

¹⁷- Ibn al-Baitar: *The Same Source*, Vol. 1, p. 30.

¹⁸- Ibn al-Baitar: *The Same Source*, Vol. 1, p. 221.

Deer, west of Gibraltar. It is caught between there and the island of Tarifa, and only Allah knows how much is caught there. On the first day of June, it returns to its area and reaches the beginning of the avenue. It is caught in a place called the Edge of the Trap, close to the Rock of Gibraltar. Those that enter the trap are caught in nets, while those that leave towards the central Moroccan coast reach the city of Tlemcen. This tuna has a long tradition of fishing and there is no fish in the sea that is more appreciated or tastier than it. It is only eaten fresh in Andalusia, but it can be dried and preserved so that it can be transported to all parts of the world. It is also fished along the river in a place known as Kallab, between the town of Denia and the area known as Marir, on the coast of Andalusia. Tuna is also fished along the coasts of Andalusia during the month of May. In addition, the coast of Shiduna is famous for catching tuna, as noted by Al-Hamiri, who said: “Tuna is found on the coast of Shiduna, not in any other coastal region of Andalusia. It appears at the beginning of May and is not seen until that month¹⁹, when it leaves the Atlantic Ocean and enters the Mediterranean Sea, known as the Roman Sea, where it is caught for forty days during its appearance and then returns around the same time the following year²⁰”.

4. Ambergris:

This is a solid substance that emits a pleasant fragrance when burnt²¹. Opinions differ as to its origin. Some authors, including al-Yaqoubi (d. 896 A.D.), mention that ambergris comes from the depths of the sea and resembles the bodies of camels or large rocks. He states: “They say it comes from the sea in the form of a camel or a large stone²²”. He adds that “there are mountains of different colours growing on the seabed, uprooted by the winds and the violent disturbance of the sea during storms, which is why it hardly appears in the summer”²³.

Al-Mas’udi (d. 957 AD) believed that it originated on the seabed, saying: “Several fishermen from Surrafin and Oman, as well as other merchants who visit these islands, have told me that ambergris grows on the bottom of this sea and forms like various kinds of mushrooms, both white and black, and truffles. When the sea rises and

¹⁹- Al-Zuhri: The Same Source. pp. 119-120.

²⁰- Al-Hamiri: The Same Source, p. 339.

²¹- Al-Nuwairi, Shihab al-Din Ahmad: The End of the Quest in the Arts of Literature, edited by Dr. Mufid Qumaih, Dar Al-Kutub Al-Ilmiyah, Beirut, Lebanon, 1424 AH, 2004, 1st ed., Vol. 12, p. 10.

²²- Al-Yaqubi, Ahmad ibn Abi Ya'qub: The Countries, with notes by Muhammad Amin Danawi, Dar Al-Kutub Al-Ilmiyah, Beirut, Lebanon, p. 210.

²³- Al-Yaaqubi: The Same Source. p. 210.

becomes more violent, it throws rocks, stones and pieces of ambergris²⁴ from its depths”.

Al-Hasan al-Wazzan (died after 1550 AD) mentioned: “Ambergris is a fearsome fish in its shape and size, and it is never seen alive because the sea throws it on the shore; its head is very hard, like a stone²⁵”.

Ambergris is one of the animal products from which the people of Andalusia have benefited greatly in the field of medicine. It is a marine animal that can be found along the western coasts of Andalusia²⁶. The Andalusian geographer Ibn Ghalib (d. 1175 A.D.) noted the presence of ambergris in the city of Lisbon, stating: “In the sea of Lisbon there is much fine ambergris, and it is more abundant on the western shores”. Al-Qazwini also mentioned: “In Shantaran, there is good ambergris that the sea sometimes throws onto its shores and from there it is carried to other regions²⁷”.

2. Benefits of animal products in the treatment of diseases

The people of Andalusia showed great interest in the field of medicine, due to their experience and knowledge in this area. They used their studies of everything around them, including the characteristics, benefits and harms of different animals, whether domesticated or used in agriculture. Their comprehensive understanding allowed them to effectively use these animals for medical purposes and treat various human ailments, which can be categorised into internal and external diseases.

1. Treatment of internal diseases

The people of Andalusia used goat fat to treat various internal ailments, especially diarrhoea. Drinking goat fat mixed with a thin broth of ground rice was beneficial for this condition. In addition, goat dung was effective against certain tumours, such as spleen and knee swelling; when mixed with a little barley, kneaded with vinegar and applied, it was found to be beneficial. Goat dung, when consumed alone, was helpful

²⁴- Al-Masoaudi, Abu al-Hasan ibn Ali: *The Meadows of Gold and Mines of Gems*, reviewed by Kamal al-Hassan Mar'i, Al-Maktabah Al-Asriyah, Sidon-Beirut, 1st ed., 1425 AH / 2005, Vol. 1, p. 118.

²⁵- Al-Wazzan, Hassan ibn Muhammad al-Fasi: *Description of Africa*, translated from French by Muhammad Haji and Muhammad al-Akhdar, Dar Al-Arab Al-Islami, Beirut, Lebanon, 1983, 2nd ed., p. 269.

²⁶- Ibn Ghalib, Muhammad ibn Ayyub al-Gharnati: *A Fragment from the Book of the Joy of Souls about the Regions of Andalusia and Its Cities*, edited by Lutfi Abdul Badi, *Journal of the Arab Manuscript Institute*, p. 308.

²⁷- Al-Qazwini: *The Same Source*, p. 542.

for jaundice, and when mixed with certain drinks it could induce menstruation and expel the foetus²⁸. Goat's milk was also used to treat coughs²⁹.

Beef was used for ear treatment; when roasted and its juice dripped into the ear, it killed the worms that had developed there. The heel of a cow, burned and crushed with wine, was effective against toothache. Cow dung had many benefits; Andalusian doctors used it to treat all kinds of solid tumours by kneading it with vinegar and applying it as a compress. In addition, when the lungs were steamed with cow dung, it proved beneficial for tuberculosis³⁰. Andalusian doctors knew the best time to collect this dung: spring was the best season because the cows were grazing on fresh, moist grass, making the dung soft and effective.

Goose fat was beneficial for those suffering from pain caused by cold factors³¹. Crane brains, when mixed with fenugreek water and applied to swelling in the hands, were effective in reducing swelling³².

Ambergris was used to treat certain stomach ailments caused by poor diet, usually as a drink, and was effective against severe intestinal gas and constipation³³. The flesh of the "tuna" fish was used to counteract the bite of the horned viper; it was recommended that those bitten eat large quantities and drink afterwards, causing repeated vomiting, which proved beneficial³⁴.

Lobster was very effective in dissolving kidney and bladder stones. The method of use was to burn the whole lobster in a pot, then crush it and drink the resulting powder with chickpea water for seven consecutive days³⁵.

2. Treatment of external diseases

Among the external diseases that affect humans is alopecia areata, a type of skin disease. The Andalusians used some animal products to treat it. The remedy was compound; they used cattle ash mixed with oil, which proved to be an effective

²⁸- Ibn al-Baitar: The Same Source, Vol. 4, pp. 421-422.

²⁹- Ibn al-Rasul: The Same Source, p. 325.

³⁰- Ibn al-Baitar: The Same Source
Vol. 1, pp. 146-147.

³¹- Ibn Zuhar, Abu Marwan Abdul Malik: Activity, Strength and Healing in Foods, with notes by Muhammad Amin Danawi, Dar Al-Kutub Al-Ilmiyah, Beirut, Lebanon, 1419 AH, 1998, 1st edition, p. 15.

³²- Ibn al-Baitar: The Same Source, vol. 4, p. 326.

³³- Ibn al-Rasul: The Same Source p. 247.

³⁴- The Same Source, vol. 1, p. 194.

³⁵- Ibn al-Baitar: The Same Source, vol. 1, p. 221.

treatment for alopecia³⁶. In addition, goat hair was also beneficial for this condition³⁷, and ash from the head of the sea rabbit³⁸ was also used to treat alopecia.

For dog bites³⁹, the flesh of the “tann” fish, salted and applied to the bite, provided relief⁴⁰. The gallbladder of the crane was used as a poultice to treat ulcerative scabies and dirt. Furthermore, the gallbladder of the partridge was effective against ocular cloudiness and darkness when used as an eye drop⁴¹.

Live pigeons were used to treat external wounds; when cut open and applied warm to the site of a scorpion sting, they provided considerable relief. In addition, the fat of these birds, when applied to scratch marks, helped to remove and heal them⁴².

Conclusion:

After studying the impact of animal products on the maintenance of health in Al-Andalus during the Middle Ages, we have reached several conclusions that can be summarised as follows:

Al-Andalus possessed significant and vast animal resources, characterised by diversity, which contributed to the revitalisation of various fields, especially the medical field.

Al-Andalus had a large population of wild animals, including different types of livestock and birds, which played a decisive role in enriching Andalusian society with their beneficial properties, especially in medicine. Livestock also played a role in the treatment of many illnesses.

The range of animal products used in Al-Andalus to treat various illnesses was varied, depending on the part used. These included meat, animal fats and other by-products, all of which played an important role in maintaining health and providing benefits in improving and treating certain ailments.

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³⁶- Ibn al-Baitar: The Same Source, vol. 1, p. 145.

³⁷- Ibn al-Rasul: The Same Source, p. 353.

³⁸- The Same Source, vol. 1, p. 30.

³⁹- Ibn al-Baitar: The Same Source, vol. 1, p. 194.

⁴⁰- Ibn al-Baitar: The Same Source. Vol. 4, p. 326; Ibn al-Rasul: The Same Source, p. 307.

⁴¹- Ibn al-Rasul: The Same Source, p. 67.

⁴²- Ibn al-Baitar: The Same Source, vol. 2, p. 293; Ibn al-Rasul: The Same Source.

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