Commentary on "Medicinal uses of the olive tree and wild olive tree in al-Andalus (9th–15th centuries) (II): dermatology, dentistry, ophthalmology"

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ABSTRACT

This commentary examines the methodological implications of comparing medieval Andalusi medical practices with contemporary biomedical knowledge, using Lozano Cámara and Navarro García's 2026 study of the medicinal uses of the olive and wild olive tree in al-Andalus as a case study. It argues that historical description, interpretation within medieval medical epistemology, and comparison with modern biomedical categories should be treated as distinct analytical operations. Particular attention is given to the risks of retrospective diagnosis and the translation of medieval disease terminology into modern nosological categories. The commentary proposes the concept of "retrospective nosological mapping" as a limited comparative operation that does not imply diagnostic equivalence. It further argues that biological plausibility and modern pharmacological evidence should not be conflated with historical therapeutic validation. A layered methodology is therefore proposed, in which textual and conceptual reconstruction precedes the use of contemporary pharmacology as an independent comparative lens.

Keywords: Andalusi medicine, Medieval Islamic medicine, history of medicine, retrospective diagnosis, medical epistemology, Pharmacology.

The study by Indalecio Lozano Cámara and María Ángeles Navarro García (2026) constitutes a valuable documentary contribution to the history of Andalusi *Materia medica* (LOZANO CÁMARA and NAVARRO GARCÍA, 2026). Drawing on over forty sources, the authors systematically organize the medicinal uses of the olive tree (*Olea europaea* L.) and wild olive tree (*var. sylvestris*), mapping preparations, plant parts, and historical sources against modern scientific literature (LOZANO CÁMARA and NAVARRO GARCÍA, 2026). Their stated aim —to "confirmar o desmentir la hipótesis" that medieval authors anticipated modern therapeutic knowledge— invites methodological reflection on the epistemic role of contemporary biomedicine in historical inquiry (LOZANO CÁMARA and NAVARRO GARCÍA, 2026).

While comparing historical data with modern pharmacology is a legitimate objective, the methodology requires careful differentiation (LOZANO CÁMARA and NAVARRO GARCÍA, 2026). Three analytical operations should be distinguished: identifying the historical description, interpreting its meaning within medieval

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medical epistemology, and comparing that interpretation with contemporary biomedical categories (MITCHELL, 2011). These operations are related but epistemologically distinct.

The first challenge arises in translating medieval terminology into modern nosological categories (MITCHELL, 2011). Retrospective diagnosis, long debated in the history of medicine, risks projecting contemporary disease constructs onto historical texts produced within entirely different conceptual frameworks (MITCHELL, 2011). Scholars have increasingly emphasized a "context-first" approach, noting that terms referring to historical bodily disorders —such as *judhām* or *baras*— cannot simply be fixed by substituting a modern bilingual equivalent (DOLS, 1979). Such terms possess complex semantic histories and must be understood within their specific temporal and geographical contexts (DOLS, 1979).

To address this methodological challenge, I propose the term "retrospective nosological mapping". This term denotes a strictly limited comparative operation: mapping historically attested symptom clusters or disease concepts onto modern categories without implying diagnostic equivalence. It serves as an analytical safeguard, signaling a comparative translation between medical epistemologies rather than claiming that a medieval author diagnosed the same discrete disease entity recognized by modern biomedicine.

A second methodological issue concerns the analytical status of modern pharmacology (LOZANO CÁMARA and NAVARRO GARCÍA, 2026). The authors explicitly place historical evidence alongside current scientific literature to adjudicate the validity of medieval uses (LOZANO CÁMARA and NAVARRO GARCÍA, 2026). However, biological plausibility should not be conflated with historical validation. To establish that a substance used in the past contains biologically active constituents is an empirical pharmacological claim. To assert that a historical preparation was therapeutically effective, or that a medieval physician selected it for reasons corresponding to modern mechanisms, requires historical evidence that pharmacology cannot supply.

Medieval Islamic pharmacology operated within a coherent conceptual system of humoral balance, temperament, and qualities (PORMANN and SAVAGE-SMITH, 2007). The historical question is not merely whether an active constituent exists, but why a specific preparation was deemed appropriate within that era's medical theory (PORMANN and SAVAGE-SMITH, 2007). Modern pharmacology should therefore function as a comparative, secondary layer rather than a retrospective tribunal determining which historical remedies are valid.

A layered methodology is preferable: first establishing textual terminology, then reconstructing the medical concept within its historical framework, and finally introducing contemporary pharmacology as an independent comparative lens.

Such an approach refines interdisciplinary dialogue. Three distinctions remain paramount: historical translation is not retrospective diagnosis; biological plausibility is not historical therapeutic efficacy; and pharmacological correspondence is not epistemological equivalence (PORMANN and SAVAGE-SMITH, 2007; MITCHELL, 2011). The historical study of Andalusi medicine is strongest when medieval concepts are first reconstructed within their own framework, allowing pharmacology and history to converse without one discipline's categories erasing the other's.

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