Debunking Misconceptions About Kohl: A Systematic Review Revealing the Untested Potential of Authentic Ithmid

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Introduction

Kohl has been used across many cultures for centuries as a traditional eye application, often praised for improving vision and supporting eyelash growth. In recent decades, however, concerns about lead toxicity have led to widespread warnings against its use. The majority of these concerns are based on studies involving commercial products that do not contain authentic ithmid, a naturally occurring antimony compound historically regarded as beneficial. This review re-evaluates the existing evidence, with a focus on separating fact from assumption.

Aims

1. To critically assess the scientific literature on the safety and efficacy of kohl
2. To highlight the common failure to distinguish between authentic ithmid and lead-adulterated products
3. To explore both classical and modern sources for evidence of ithmid's therapeutic value

Methods

A systematic review was conducted in line with PRISMA guidelines. Searches were performed on PubMed and Google Scholar using keywords such as "ithmid kohl," "antimony-based eyeliner," and "kohl lead toxicity." Studies were included regardless of whether they identified the chemical composition of the kohl tested, as the lack of differentiation was central to our analysis. Historical medical texts were also reviewed to provide context on traditional uses of ithmid. Studies were assessed for quality, relevance, and clarity regarding formulation.

Results

- Most modern studies condemning kohl focus on lead-contaminated commercial products, not authentic ithmid.
- A Saudi-based chemical analysis confirmed that popular kohl brands contain high levels of lead, not antimony (Al-Kaff et al[1]).
- A clinical trial showed kohl (surma) to be more effective than erythromycin in treating blepharitis, with superior symptom improvement (Karbassi et al[2]).
- Historical works, such as Zad al-Ma'ad by Ibn al-Qayyim[3], describe ithmid as beneficial for vision, eyelash growth, and ocular hygiene.
- Despite this, no modern clinical studies have rigorously investigated the safety or efficacy of pure ithmid kohl.



Conclusion

This review highlights a critical flaw in the current body of evidence on kohl. Conclusions about its safety are largely based on studies of lead-contaminated products and do not reflect the properties of authentic ithmid. There is an urgent need for well-designed clinical research focusing on verified ithmid to better understand its safety profile and potential therapeutic benefits.

References

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3. Ibn al-Qayyim. Zad al-Ma'ad. Vol 4. Beirut: Mu'assasat al-Risalah; 1998. p. 281.