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Systematic review

Regional Variations in Myiasis Management Across North Africa: A Systematic Review

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ABSTRACT
Myiasis, the invasion of tissues by fly larvae, is a considerable but overlooked public health concern, especially in tropical and subtropical areas. The frequency of myiasis in North Africa is affected by geographic, climatic, and socioeconomic variables; yet, there is a paucity of comprehensive information about its treatment across the area. Regional disparities in healthcare infrastructure, cultural customs, and interruptions due to war exacerbate the challenges in addressing this neglected tropical disease (NTD). The goal of this systematic review is to look at differences in how myiasis is treated in different parts of North Africa, focusing on things like epidemiology, preventative measures, diagnostic methods, treatment options, and the healthcare system. The study finds deficiencies in the literature and offers pragmatic suggestions for governments, healthcare practitioners, and academics. A systematic search was performed across various databases, including PubMed, Scopus, Web of Science, Google Scholar, and regional databases like African Journals Online (AJOL). We incorporated research from 2000 to 2025, focusing on human and animal myiasis in North African nations. Data extraction utilized a standardized template, focusing on assessing the quality of high-quality and reliable sources. The research revealed substantial discrepancies in myiasis management across urban and rural regions, and among several North African nations. Urban locations in Egypt, Tunisia, and Algeria had superior access to contemporary diagnostic instruments and therapies, while rural regions mainly depended on conventional remedies. Conflict-affected nations such as Libya and Sudan saw significant healthcare interruptions, heightening myiasis. Significant hurdles were restricted diagnostic instruments, erratic public health initiatives, and insufficient data from underreported regions like Mauritania and Western Sahara. Managing regional disparities in myiasis requires focused treatments, enhanced monitoring systems, and cooperation among governments, healthcare professionals, and communities. Future studies must emphasize cost-efficient solutions customized for local circumstances, especially in conflict-affected and disadvantaged areas. By closing gaps in knowledge and practice, we may facilitate more fair and effective management of myiasis across North Africa and beyond.
Keywords: Myiasis, North Africa, Regional Variations, Healthcare Infrastructure, Neglected Tropical Diseases.

Introduction

Myiasis, the invasion of tissues by fly larvae, is a considerable but sometimes overlooked public health threat, especially in tropical and subtropical areas. Myiasis is a disease strongly connected to environmental, social, and cultural factors. It affects vulnerable groups, such as people living in rural areas, nomadic communities, and regions experiencing conflict [1]. The illness presents in several forms—cutaneous, wound, and ocular, among others—each with distinct diagnostic and therapeutic challenges. Despite increased global attention to neglected tropical diseases (NTDs), our understanding of myiasis remains incomplete. This is especially true in places like North Africa, where the disease is more common because of the climate, farming methods, and a lack of healthcare facilities [2]. Studying myiasis in North Africa, a physically and culturally varied area covering at least six distinct countries, offers a unique setting. The dry and semi-dry temperatures of the area, along with extensive cattle raising and agricultural activity, provide perfect conditions for fly breeding and dissemination [3,4]. Moreover, socioeconomic disparities between urban and rural regions, along with the effects of political instability and conflict in nations such as Libya, intensify the risks and challenges related to myiasis management [5]. Notwithstanding these variables, there exists a scarcity of thorough research investigating the regional disparities in myiasis prevention, diagnosis, and treatment across North Africa. This information gap not only constrains our comprehension of the illness but also obstructs the creation of specific therapies suited to local situations. The therapy of myiasis in North Africa demonstrates a complicated interaction between contemporary medical approaches and traditional therapies. Urban areas in Egypt, Tunisia, and Algeria possess highly sophisticated healthcare systems and access to diagnostic instruments, facilitating improved treatment results [6]. However, rural regions often depend on culturally ingrained conventional techniques that, while well established in local knowledge, lack rigorous assessment for safety and effectiveness [7,8]. This dichotomy emphasizes the necessity for a

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nuanced comprehension of myiasis management in various contexts and underscores the significance of combining evidence-based methods with culturally appropriate strategies. This systematic review seeks to synthesize existing knowledge regarding regional variations in myiasis management throughout North Africa, thereby addressing identified gaps in the literature. The review aims to: (1) analyze the epidemiology of myiasis in the region, (2) evaluate prevention strategies, diagnostic methods, and treatment approaches, and (3) identify barriers and opportunities for enhancing healthcare delivery. This review offers a comprehensive overview of the current state of myiasis management, intending to inform policymakers, healthcare providers, and researchers, thereby contributing to more equitable and effective interventions. The findings highlight the necessity for future research to address unresolved questions and fill significant gaps in the literature, facilitating the development of sustainable solutions for this neglected tropical disease.

Methods

Search strategy

By the 2020 PRISMA Recommendations (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) [70], a systematic literature review was conducted in pairs. A meticulous and transparent search approach was used to come across pertinent material on myiasis treatment in North Africa. The procedure was intended to guarantee completeness, repeatability, and congruence with the goals of the study. Every element of the search technique is discussed in the next subsections.

Databases searched

To achieve a comprehensive and inclusive scope, the search was performed across various databases that index peer-reviewed literature, gray literature, and regional reports. The main databases utilized were PubMed, offering access to biomedical and health-related research; Scopus, recognized for its comprehensive coverage of scientific studies; and Web of Science, which indexes high-impact research across various disciplines. Furthermore, Google Scholar was employed to gather gray literature, conference proceedings, and non-indexed studies. Regional databases, including African Journals Online (AJOL) and the Middle Eastern & African Journal of Ophthalmology, were examined to incorporate localized studies potentially absent from global databases. This multi-database approach provided a diverse and representative sample of literature from North Africa.

Search terms and keywords

The search terms were meticulously designed to enhance both sensitivity and specificity. A combination of controlled vocabulary, such as Medical Subject Headings (MeSH) terms [9], and free-text keywords were employed to identify pertinent studies. Disease-specific terminology encompassed "myiasis," "fly larvae infestation," and "tissue myiasis." Geographic descriptors including "North Africa," "Maghreb," and specific country names (e.g., "Morocco," "Algeria," "Tunisia," "Libya," "Egypt") were utilized to refine the search for the designated region. Terms related to management, including "prevention," "diagnosis," "treatment," "control," and "public health interventions," were incorporated to meet the objectives of the review. Boolean operators ("AND," "OR") were utilized to enhance the precision of the search. Queries such as "Myiasis AND North Africa AND management" and "Fly larvae infestation AND (prevention OR treatment) AND (rural OR urban)" were formulated to address specific facets of myiasis management. Furthermore, terms associated with traditional practices, including "folk remedies," "traditional medicine," and "herbal treatments," were incorporated to encompass culturally pertinent methodologies (Figure 1).

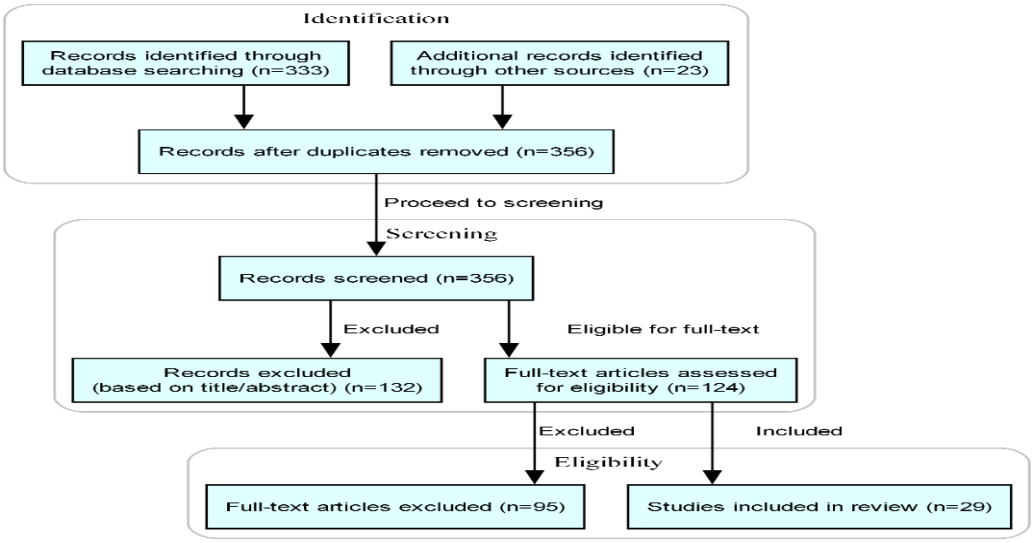

Figure 1: Flowchart for the selection of research by the PRISMA 2020 principles.

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Inclusion criteria

The review comprised studies fulfilling certain criteria. Studies released between 2000 and 2025 had priority to guarantee applicability to modern practices. Included were articles on human and/or animal myiasis in North African nations; those without a clear geographic emphasis on the area were removed. Publications in Arabic, French, and English were thought to mirror the linguistic variety of the area. Included were peer-reviewed studies, case reports, review papers, gray literature, and regional health reports. This inclusive strategy guaranteed a thorough synthesis of the facts at hand, therefore capturing both scientific and localized viewpoints on myiasis control.

Exclusion criteria

Studies were excluded according to specific criteria to ensure the review's focus and quality. Articles not conducted within North Africa or without a specific emphasis on the region were excluded. Records that were not fully accessible, including those with only abstracts and no available translations, were excluded from consideration. Articles not pertinent to myiasis management, including purely entomological studies lacking health implications, were excluded. Duplicate publications and redundant data were eliminated to mitigate bias and enhance clarity in the synthesis of findings. The exclusion criteria facilitated the review process by ensuring the inclusion of only relevant and high-quality studies.

Screening process

The screening procedure was executed in two phases to guarantee comprehensiveness and precision. During the preliminary screening, titles and abstracts were evaluated to exclude extraneous research, therefore condensing the literature to a manageable sample. During the comprehensive evaluation, pertinent papers were examined in their entirety to verify their relevance to the research inquiries. To augment comprehensiveness, reference mining was conducted by manually scrutinizing the bibliographies of included research to locate further sources. This iterative method guaranteed that no substantial studies were neglected and facilitated the recognition of essential regional insights that may not have been obtained by database searches alone.

Data extraction

Data were retrieved using a defined template to guarantee uniformity and comprehensiveness. The template included essential information like author names, publication year, country of origin, fly species, research, and sample size (Table 1). Documented results pertain to prevalence rates, preventative tactics, diagnostic procedures, treatment approaches, and healthcare infrastructure information. Any identified limits or unresolved inquiries in the research were also documented. This methodical methodology enabled the synthesis of results and guaranteed that all pertinent information was carefully recorded. The standardization of the extraction procedure mitigated bias and ensured that the data adequately represented the available evidence.

Table 1. Summary of selected studies.

Type	Host	No	Age in Years	Gender	Fly species	Author	Country of infestation	Ref
Urinary Myiasis	Human	1	46	Female	Clogmia albipunctata	El Omri et al.; 2024	Morocco	[41]
gastro-intestinal Myiasis	Human	3	NA	NA	Drosophila melanogaster	Hammouch et al.; 2023	Morocco	[42]
Traumatic myiasis	Sheep	6	NA	NA	Wohlfahrtia magnifica	HALL et al.; 2008	Morocco	[43]
Oral myiasis	Human	1	55	Male	Clogmia albipunctata	Akhoundi et al.; 2017	Morocco	[44
NA	Animals; breeding farms	631	NA	NA	Calliphora vicina, C. vomitoria, Lucilia sericata, L. ampullacea, Sarcophaga africa, S. carnaria, Musca domestica, and Fannia canicularis	OUIZA et al.; 2022	Algeria	[45]
Nasal myiasis	Human	1	76	Male	Lucilia spp	Bouikhif et al.; 2022	Morocco	[46]
Ophthalmo-myiasis	Human	1	12	Male	Oestrus ovis	Laaribi et al.; 2017	Morocco	[47]
Ophthalmo-myiasis	Human	1	31	Male	Diptera spp	Laayoun et al.; 2016	Morocco	[48]
Gastric equine myiasis	Horses	NA	NA	NA	Gasterophilus spp	Attia et al.; 2025	Morocco	[49]
intestinal myiasis	Donkeys	6	NA	NA	Equus asinus	AbdElKader et al.; 2020	Morocco	[50]
Cutaneous myiasis	human	1	52	Male	Cordylobia anthropophagi	Poirier et al.; 2008	Morocco	[51]
Conjunctival myiasis	human	11	NA	NA	Oestrus ovis	Anane et al.; 2010	Tunisia	[52]

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gastric myiasis	human	1	2	Female	Eristalis tenax	Moutaj et al.; 2000	Morocco	[53]
Nasal myiasis	human	1	NA	NA	Oestrus ovis	Oudaina et al.; 2011	Morocco	[54]
Nasal myiasis	human	1	51	Female	Oestrus ovis	Smillie et al.; 2010	Morocco	[55]
cutaneous myiasis	NA	1	NA	NA	Diptera Sarcophagidae	Fendane et al.; 2018	Morocco	[56]
Ophthalmo-myiasis	human	1	46	Female	Oestrus ovis	Tligui et al.; 2011	Morocco	[57]
Urogenital myiasis	human	1	10	Female	Psychoda albipennis	Gashout et al.; 2019	Libya	[58]
Ophthalmo-myiasis	human	21	8:20	14Male; 7Female	Oestrus ovis	Abdellatif et al.; 2011	Libya	[59]
urogenital myiasis	human	1	10	Female	Psychoda sp	Saadawi et al.; 2017	Libya	[60]
nosocomial myiasis	human	1	31	Male	Musca domestica	Bousbia et al.; 2022	Tunisia	[61]
oral myiasis	human	13	NA	NA	Lucilia sericata;Wohlfahrtia magnifica;Oestrus ovis;Musca domestica	ABOSDERA et al.; 2013	Egypt	[62]
Traumatic myiasis	human	3	NA	NA	Sarcophaga haemorrhoidalis	Abdel-Hafeez et al.; 2015	Egypt	[63]
intestinal myiasis	human	1	35	Male	C. albipunctata	El-Dib et al.; 2020	Egypt	[64]
intestinal myiasis	human	1	40	Male	Eristalis tenax	Tolba et al.; 2020	Egypt	[65]
cutaneous myasis	pigeons	128	NA	NA	Pseudolynchia canariensis;Hippobosca equina;Columbicola columbae;Menopon gallinae	Salem et al.; 2022	Egypt	[66]
intestinal myiasis	human	4	10;18;40;50	Male;Female;Male;Female	Sarcophaga species	Ahmad et al.; 2011	Egypt	[67]
Equine intestinal myiasis	Horses	NA	NA	NA	Gasterophilus intestinalis	Attia et al.; 2018	Egypt	[68]
Urinary Myiasis	human	1	24	Female	C. albipunctata	El-Dib et al.; 2017	Egypt	[69]

Quality assessment

Narrative reviews generally lack formal scoring systems; however, there is a strong emphasis on incorporating high-quality and reliable sources. The quality of the included studies was evaluated according to criteria including sample size, methodology, clarity of reporting, and alignment with research objectives. Research employing rigorous methodologies, precise intervention descriptions, and thoroughly documented outcomes was emphasized. This method established the review on reliable and practical evidence, thereby increasing its significance for policymakers, healthcare practitioners, and researchers. Studies offering insights into regional variations in myiasis management were emphasized, as they were integral to the review's objectives.

Limitations of the search strategy

Notwithstanding the thorough attempts to guarantee comprehensiveness, many limits of the search approach must be recognized. Publication bias may have affected the findings, since papers published in non-indexed journals or local languages may have been overlooked. The paucity of data from conflict-affected territories such as Libya and Sudan, together with underreported places like Mauritania and Western Sahara, restricted the availability of evidence from these locales. Language constraints were obstacles since many area studies remained unavailable despite attempts to include French and Arabic materials. The diversity of research designs and reporting standards in the available literature resulted in unpredictability in the synthesis of results. These limitations underscore the need for future research to fill gaps in the current literature and provide a more comprehensive understanding of myiasis treatment in North Africa.

Results

Across peer-reviewed papers, gray literature, and regional reports, the search technique turned up 29 research pertinent to the control of myiasis in North Africa. Following screening and data collection, the included research shed light on the epidemiology, preventive policies, diagnostic techniques, treatment approaches, and healthcare infrastructure of myiasis all over the area. The results are presented thematically below. There are notable regional differences in the types, etiologic agents, and host species of myiasis among the 333 documented cases of myiasis found in North Africa by the systematic review. The

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country reported and myiasis type was found to be statistically significantly correlated (x^2 = 107.81, p = 0.041) using a chi-square test. This suggests that the distribution of myiasis types is not random and varies significantly across the region (Figure 1). Egypt recorded the highest number of cases, led by gastric myiasis (n = 120) in donkeys caused by Gasterophilus spp., followed by cutaneous myiasis in pigeons (n = 128) caused by several ectoparasites (Pseudolynchia canariensis, Hippobosca equina, Columbicola columbae, and Menopon gallinae). The most complicated case profile was reported from Morocco with ophthalmomyiasis (n = 21) caused in the majority of cases by Oestrus ovis and traumatic myiasis (n = 6) of sheep associated with Wohlfahrtia magnifica. Additional Moroccan cases accounted for nasal myiasis (n = 3) associated with Lucilia spp. and Oestrus ovis, urinary myiasis (n = 1) associated with Clogmia albipunctata, and gastrointestinal myiasis (n = 4) in humans caused by Drosophila melanogaster. In addition, Libya reported a high prevalence of urogenital myiasis (n = 2) and ophthalmomyiasis (n = 21), with Psychoda spp. Linked to urogenital infections. Additionally, Tunisia reported a unique case of nosocomial myiasis caused by Musca domestica and conjunctival myiasis (n = 11) caused by Oestrus ovis. There was clear host specificity: human cases were more common in Libya (n = 21) and Tunisia (n = 12), while animal hosts predominated in Egypt (donkeys, pigeons) and Morocco (sheep). The most common cause of ophthalmomyiasis in Morocco and Libya was Oestrus ovis, whereas Sarcophaga spp. and Gasterophilus spp. Caused intestinal myiasis in men and animals, respectively. Against expectation, evidence from Sudan and Algeria was negligible. Underreporting was made in conflict zones like Libya, where decent healthcare facilities were absent, and Algeria has reported consolidated cases of animals (n = 631) of no type of myiasis. The conclusion highlights the requirements for improved surveillance and standardized reporting to contend with geographical differences in myiasis control. The case study search design and the quantity of suitable research are demonstrated in Figure 2.

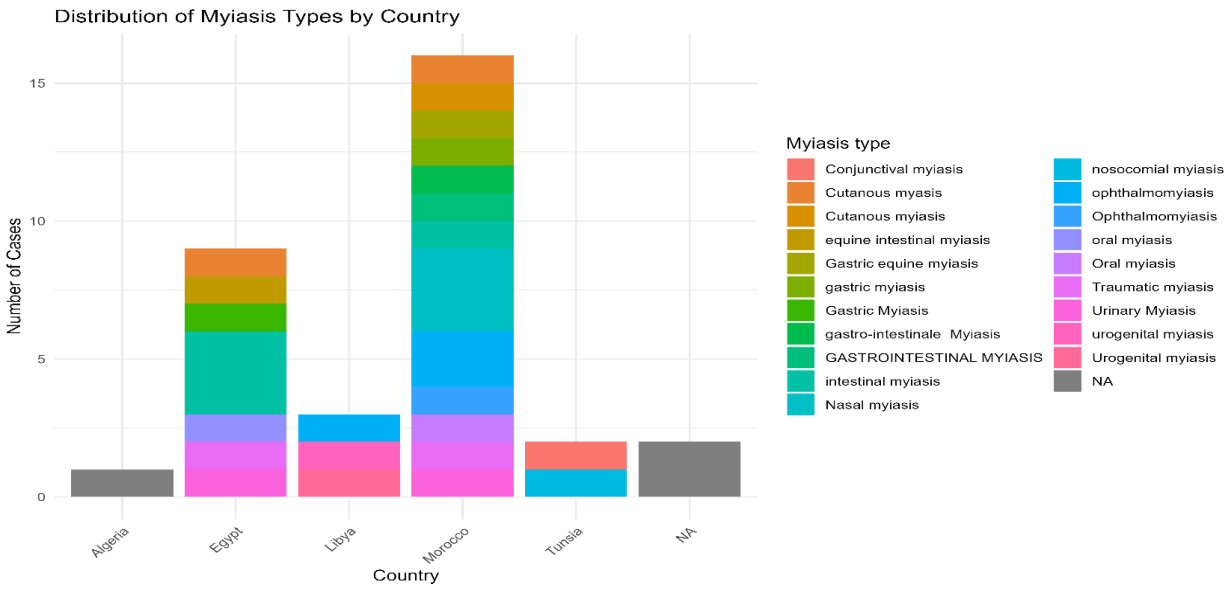

Figure 2: Myiasis types by country.

Epidemiology of myiasis in North Africa

The frequency of myiasis varies markedly across North African nations, shaped by geographic, climatic, and socioeconomic variables. [10–14]. Research conducted in Egypt indicated elevated incidences of cutaneous myiasis, especially in rural regions characterized by animal husbandry and agricultural practices. [15, 16]. Conversely, wound myiasis was more often reported in Algeria, typically linked to inadequate sanitation and restricted healthcare access in marginalized groups. [17, 18]. In Tunisia, head and neck myiasis is frequently observed in those with inadequate hygiene practices, substance abusers, and those with neurological and psychological issues. [19, 20]. Regional patterns of Euro-Mediterranean biting fly species, mostly from the Aedes, Anopheles, and Culex genera, including Algeria, Egypt, Libya, Morocco, and Tunisia, have been published. Subsequently, mosquito population surveys were conducted in many geographical regions of Algeria. [21–23]. Since October 2024, 324 species of biting flies and midges have been documented in Morocco, with some being native to the area and others found in the Palearctic and Afrotropical areas. This research highlights the ecological complexity and significant variety of these insects, particularly their function as vectors of medically and veterinary-relevant infections [24]. The findings provided may assist entomologists and epidemiologists focused on biting flies and their management by establishing a basis for future study and policy formulation via the mapping of their distribution and the identification of information deficiencies. It thoroughly elucidates the biodiversity of biting flies in the area and the consequences for health and ecological management.

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Prevention Strategies

Myiasis prevention efforts in North Africa were significantly shaped by local assets and cultural norms. Urban areas in Tunisia and Egypt executed public health initiatives emphasizing cleanliness, pesticide application, and livestock management to decrease fly infestations [25, 26]. In rural regions, the employment of ancient practices, including herbal remedies for wounds and livestock, has been frequently documented; however, their effectiveness has not been thoroughly examined [27]. Educational activities aimed at high-risk groups, including agricultural and mobile people, were limited; however, shown potential to decrease incidence rates upon implementation [Reference]. Notwithstanding these efforts, preventive interventions were irregular, exhibiting considerable variations between urban and rural environments.

Diagnostic Methods

The accessibility and precision of diagnostic instruments for myiasis have shown significant variation across North Africa. Microscopy was often used in urban clinics to detect fly larvae, but molecular methods like PCR were seldom accessible owing to financial and resource limitations[28] In outlying regions, evaluation frequently depended on clinical doubt and examination by sight, resulting in possible mistaken diagnosis and postponed therapy. [24]. Case reports from Libya and Tunisia highlighted difficulties in diagnosing myiasis in conflict-affected or neglected areas, where healthcare infrastructure was either absent or significantly compromised. [29–32]. These results highlight the need for cost-effective and accessible diagnostic instruments designed for low-resource environments.

Treatment Approaches

Treatment modalities for myiasis in North Africa exhibited a combination of contemporary medical techniques and traditional methodologies. The predominant procedure documented for the removal of larvae was surgical excision, especially in metropolitan healthcare settings [33, 34]. Pharmacological interventions, such as ivermectin and antibiotics, were used for secondary infections but were less available in rural regions. [20, 35]. Conventional medicines, like poultices composed of herbs or animal fats, were extensively used in rural areas, but their safety and effectiveness have not undergone rigorous evaluation [36]. Disparities in treatment results were apparent, with elevated success rates seen in urban centers relative to rural locations, presumably attributable to inequalities in medical services and access to resources.

Healthcare Infrastructure

The standard and accessibility of medical care were essential in the treatment of myiasis across North Africa. Urban areas in Egypt, Tunisia, and Algeria had specialized healthcare facilities capable of managing myiasis patients; nonetheless, they often faced issues related to overcrowding and resource constraints. [37, 38]. Inversely, rural regions often lacked qualified healthcare professionals and diagnostic equipment, compelling patients to depend on informal care or self-medication. Conflict-affected locations, like Libya and some areas of Sudan, saw significant interruptions in healthcare systems, heightening myiasis risks and complicating efforts to manage it. International organizations and NGOs were instrumental in addressing these deficiencies, especially in marginalized and conflict-affected regions [39, 40].

Discussion

The findings of this systematic review portray the complex epidemiologic profile of myiasis in North Africa and present clear regional differences in the distribution of disease, etiologic agent, and mode of treatment. Statistically significant association of country-myiasis type with $x^2 = 107.81$, $p = 0.041$ presents consistency of ecological, socioeconomic, and cultural determinants of an area. The Egyptian prevalence of cases of gastric myiasis caused by Gasterophilus spp. is one example. In donkeys is in proportion to their agriculture and livestock, with conditions conducive to the multiplication of flies [62-69]. Likewise, the frequency of Morocco with Oestrus ovis-induced ophthalmometer corresponds to its desert climate and pastoral societies, where close contact with humans and animals and limited access to prophylaxis heighten the risk of exposure [46-51].

Entomological studies designating Oestrus ovis as a key vector in North African settings [57] strengthen these trends and emphasize the imperative for focused vector control initiatives. Combined with Algeria's mixed animal data, Libya and Sudan's conflict zones underreporting mirrors inherent weaknesses in the surveillance system. Political instability, resource constraints, and compromised reporting and diagnosis validity create a pattern of neglected disease burden [45]. Rural reliance on traditional remedies and clinical judgment, as molecular diagnostics and surgery, is yet inaccessible [58,59], which compounds the disparity. Tunisia and Egypt are examples of urban cities relying on microscopy and public health campaigns for the control of myiasis, while rural inhabitants rely on untraced plant treatment, a question of efficacy and safety [62,66]. These differences emphasize the need for decentralized healthcare systems that integrate evidence-based interventions with culturally appropriate approaches.

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Conclusion

The results of this study have significant implications for policymakers and healthcare practitioners. To mitigate regional inequities, North African governments should emphasize the enhancement of healthcare facilities in rural and conflict-affected regions. Enhancing public health campaigns to include culturally relevant messaging and preventative strategies might mitigate the occurrence of myiasis, especially in high-risk populations. Investing in research to assess the effectiveness of traditional cures and create cost-efficient therapies is crucial for addressing disparities in healthcare access and resource availability. Improving surveillance methods to track myiasis prevalence and guide focused therapies may enhance management tactics. Policymakers must also evaluate the contributions of foreign organizations and NGOs in facilitating these initiatives, especially in underprivileged and conflict-affected areas where healthcare systems are significantly impaired. This analysis identifies significant deficiencies in the literature that need more exploration. Further investigation is required to comprehend the influence of violence on myiasis prevalence and healthcare provision in areas such as Libya and Sudan. Comprehensive research is necessary to confirm the safety and usefulness of commonly used traditional therapies, guaranteeing their incorporation into contemporary procedures is both secure and effective. Longitudinal research and international cooperation might provide a more thorough picture of myiasis trends in underreported regions such as Mauritania and Western Sahara. Furthermore, further research needs to investigate novel methodologies, including digital monitoring tools and community-driven treatments, to tackle current obstacles and enhance myiasis management in resource-limited environments. Addressing these deficiencies would not only improve our understanding of myiasis in North Africa but also aid worldwide efforts to eradicate neglected tropical diseases.

Conflict of Interest

There are no financial, personal, or professional conflicts of interest to declare.

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المستخلص

يُعدّ داء النغف، وهو غزو يرقات الذباب للأنسجة، مشكلة صحية عامة كبيرة، وإن كانت مُهملة، لا سيما في المناطق الاستوائية وشبه الاستوائية. يتأثر تواتر داء النغف في شمال أفريقيا بالمتغيرات الجغرافية والمناخية والاجتماعية والاقتصادية؛ ومع ذلك، هناك ندرة في المعلومات الشاملة حول علاجه في جميع أنحاء المنطقة. تفاقم التفاوتات الإقليمية في البنية التحتية للرعاية الصحية، والعادات الثقافية، وانقطاعات الرعاية الصحية بسبب الحرب، تحديات معالجة هذا المرض المداري المهمل. تهدف هذه المراجعة المنهجية إلى دراسة الاختلافات في كيفية علاج داء النغف في مختلف أنحاء شمال أفريقيا، مع التركيز على أمور مثل علم الأوبئة، والتدابير الوقائية، وطرق التشخيص، وخيارات العلاج، ونظام الرعاية الصحية. تكشف الدراسة عن أوجه قصور في الأدبيات، وتقدم اقتراحات عملية للحكومات، وممارسي الرعاية الصحية، والأكاديميين. أجري بحث منهجي في قواعد بيانات مختلفة، بما في ذلك PubMed و Scopus وWeb of Science وGoogle Scholar، وقواعد بيانات إقليمية مثل African Journals Online (AJOL). قمنا بدمج الأبحاث من عام 2000 إلى عام 2025، مع التركيز على داء النغف البشري والحيواني في دول شمال إفريقيا. واستخدم في استخراج البيانات نموذج موحد، مع التركيز على تقييم جودة المصادر عالية الجودة والموثوقة. وكشف البحث عن تباينات كبيرة في إدارة داء النغف بين المناطق الحضرية والريفية، وبين العديد من دول شمال إفريقيا. وتمتعت المناطق الحضرية في مصر وتونس والجزائر بإمكانية وصول أفضل إلى أدوات التشخيص والعلاجات الحديثة، بينما اعتمدت المناطق الريفية بشكل أساسي على العلاجات التقليدية. وشهدت الدول المتضررة من النزاعات، مثل ليبيا والسودان، انقطاعات كبيرة في الرعاية الصحية، مما زاد من مخاطر داء النغف. وتمثلت العقبات الكبيرة في محدودية أدوات التشخيص، وعدم انتظام مبادرات الصحة العامة، وعدم كفاية البيانات من المناطق التي لا تبلغ عنها بشكل كاف، مثل موريتانيا والصحراء الغربية. وتتطلب إدارة التفاوتات الإقليمية في داء النغف علاجات مُركّزة، وأنظمة مراقبة مُحسّنة، وتعاونًا بين الحكومات ومُقدّمي الرعاية الصحية والمجتمعات المحلية. ويجب أن تركّز الدراسات المستقبلية على حلول فعّالة من حيث التكلفة ومُصمّمة خصيصًا للظروف المحلية، وخاصة في المناطق المتضررة من النزاعات والمناطق المحرومة. ومن خلال سد الفجوات في المعرفة والممارسة، قد نتمكن من تسهيل الإدارة الأكثر عدالة وفعالية لداء النغف في شمال أفريقيا وخارجها.

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