toothmobility, trismus, Systemic: fever, malaise, tachycardia, hypotension (in sepsis). Severe cases: dysphagia, respiratory distress, altered mental status. Diagnosis are clinical examination, imaging: orthopantomogram, CT scan, blood tests: CBC, CRP, blood cultures if systemic signs present. As treatments early airway assessment, prompot source control (drainage/ extraction), appropriate empiric antibiotics and sepsis care when systemic involvement is present. Airway compromise signs: rapidly progressive swelling severe trismus, dysphagia, systemic toxicity esc. Ludwig's angina: urgent surgical drainage multiple drains, frequent irrigation. Performe source control within 6–12 hours from diagnosis in sepsis. In antibiotic therapy first line Amoxicillin-clavulanate 875/125 mg or Amoxicillin 500 mg + Metronidazole 500 mg. Penicillin allergy (anaphylaxis): Clindamycin 300 mg. Alternatives: Cefuroxime 500 mg + Metronidazole 500 mg.

Conclusion

Odontogenic infections can lead to sepsis, which can result in tissue damage, organ failure and death. Annually there are approximately six million deaths from sepsis worldwide. A careful history and through clinical examinations are essential to determine the serverity of any infection. History taking will highlight factors like immune system competence and the level of systemic reserves to fight infections. A physical examination can identify clinical observations outside normal limits. Odontogenic infections with fulminant progression should be treated based on clinical and imaging data with immediate surgical incision and drainage including elimination of odontogenic foci as well as intensified intra- and postoperative irrigation. If needed, repeat imaging followed by further incisions should be performed. Immediate antibiotic treatment adapted to the antibiogram is of utmost importance.

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PREVALANCE OF MALARIA IN INDIA

Introduction

Anopheles mosquitoes are the primary vectors of malaria, which is mostly caused by Plasmodium falciparum and Plasmodium vivax. The prevalence of malaria in India has fluctuated dramatically over the years, reaching a high death rate of 75 million cases in the 1950s before sharply declining as a result of control efforts. However, there have been sporadic

resurgences brought on by factors like urbanization, insecticide resistance, and operational gaps [1]. The number of cases has significantly decreased in recent years (2000–2022), with the yearly caseload falling from 1.17 million in 2015 to about 0.18 million in 2022 [2]. In 2022, India was responsible for 66% of malaria cases in the South-East Asia area of the World Health Organization (WHO), despite these advancements. The challenge is concentrated in tribal regions and certain states with dense forests, poor infrastructure, and limited access to healthcare. Seasonal peaks occur during and right after the monsoon, and men aged 21–40 are most commonly affected, though young children are at highest risk of complications [3]a coastal Union territory located in the Southern part of India over a period of 7 years.\nMETHODOLOGY: A retrospective record-based study was conducted from 2015 to 2021, where details from all samples that tested positive for malaria by peripheral blood examination or rapid card test, from suspected cases were collected and analyzed.\nRESULTS: The overall prevalence of malaria over the 7 years was 1.7% (257/14,888.

Goal

This study aims to evaluate the prevalence of malaria in India, while also examining the major factors contributing to the transmission and spread of this disease.

Material and methods of research

The data was collected from scientific literature, official health databases, and governmental and institutional reports related to malaria in India.

The results of the research and their discussion

India has witnessed a remarkable decline in national malaria caseloads, dropping from 1.17 million cases in 2015 to just 0.18 million in 2022 – a reduction of nearly 85% [3]a coastal Union territory located in the Southern part of India over a period of 7 years.\nMETHODOLOGY: A retrospective record-based study was conducted from 2015 to 2021, where details from all samples that tested positive for malaria by peripheral blood examination or rapid card test, from suspected cases were collected and analyzed.\nRESULTS: The overall prevalence of malaria over the 7 years was 1.7% (257/14,888. However, the burden remains unevenly distributed, with tribal districts accounting for 44% of total cases and 43% of malaria-related deaths, largely due to Plasmodium falciparum, which represents 57.3% of infections in these regions. Seasonal trends indicate that malaria transmission peaks during the monsoon months, with the highest number of cases recorded between June and September. The disease shows a strong male predominance, as approximately 75% of cases occur in young adult males aged 21–40, while children under 10 years remain highly vulnerable to severe malaria. Although P. vivax remains the most common species nationwide, contributing to 63% of infections, P. falciparum is responsible for most severe and fatal cases, particularly among young children. Encouraging results have been observed through targeted interventions – such as in Mandla district, where integrated surveillance and control measures led to a 91% reduction in indigenous malaria and sustained zero transmission for several months. The use of Long-Lasting Insecticidal Nets (LLINs) increased from 34% to 47% between 2017 and 2019, alongside notable improvements in Indoor Residual Spraying (IRS) quality. Moreover, mass screening efforts have identified asymptomatic malaria prevalence at around 1% and sub-microscopic infections at approximately 1.5%, emphasizing the need for more sensitive diagnostic tools [4, 5]. Despite these advancements, national program data may still underreport the true malaria burden, as independent research suggests that actual prevalence could be up to four times higher than official estimates.

Recent discussions on malaria in India emphasize the country's progress toward the Malaria-Free India 2030 goal under the National Framework for Malaria Elimination (NFME).

India has achieved a significant reduction in malaria cases and deaths through strengthened surveillance, improved diagnostics, and effective treatment using Artemisinin-based Combination Therapy (ACT). The widespread use of Long-Lasting Insecticidal Nets (LLINs) and Indoor Residual Spraying (IRS) has also contributed to this success. The World Malaria Report 2023 by WHO recognized India for achieving the highest decline in malaria cases in the South-East Asia region. However, recent discussions highlight challenges such as insecticide and drug resistance, climate change, and continued transmission in tribal and remote areas. To overcome these, the government is focusing on community awareness, digital surveillance, and targeted interventions. Sustained efforts across all sectors are crucial to achieve complete malaria elimination by 2030 and ensure a healthier, malaria-free India [2].

Conclusion

In conclusion, the prevalence of malaria in India has shown a significant decline over the past decade due to sustained government efforts and improved public health strategies. The disease, once widespread across many states, is now largely concentrated in tribal, remote, and forested regions of states such as Chhattisgarh, Jharkhand, Odisha, Madhya Pradesh, and parts of the North-Eastern states. The successful implementation of the National Framework for Malaria Elimination (NFME) and the National Strategic Plan (NSP) for 2017–2022 has led to substantial reductions in both malaria cases and deaths. Factors such as enhanced vector control measures, use of rapid diagnostic tests, effective treatment with Artemisinin-based Combination Therapy, and improved community awareness have contributed to this progress. However, challenges remain in areas with poor healthcare access, climatic conditions favorable for mosquito breeding, and socio-economic barriers. Continuous surveillance, targeted interventions, and sustained public participation are essential to maintain the downward trend. With dedicated efforts from the government, health workers, and communities, India is steadily progressing toward its goal of achieving zero indigenous malaria cases and attaining malaria-free certification by 2030, marking a major milestone in the nation's public health journey.

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