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The effects of natural environmental factors on temporal and spatial distribution of malaria in the Anuradhapura District

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In the Anuradhapura District of Sri Lanka, malaria has been a seriously risky threat over the past decades and malaria epidemic continuous to be a major public health problem, particularly in the Eastern and Northern parts of the district. The natural environmental factors that affect the spread of malaria under spatial and temporal conditions are being studied in detail the finding supports to overcome problems associated with the present and future situation in the Anuradhapura district. The aim of this study is to investigate the natural environmental factors related to the occurrence of malaria can be detected. Yet, 27% or 448 of the total number 1,628 of malaria cases found in Sri Lanka in 2005, have been reported from the Anuradhapura district. The peak transmission season of malaria in the district occurs during October to February each year, while highest recorded in January. Seasonal rainfall created in forming breeding grounds for mosquitoes. During the Yala season, there isn't much rain when small tanks also dry-up to a lesser extent, flow slow forming puddles intermittently which favour breeding of mosquitoes. According to the Chawait (1985) malaria parasite does not develop inside of vector body below 15- °C. Optimum temperature for this between 20-30 °C. Under these favourable conditions, Anopheles mosquitoes emerge from these breeding grounds and may easily suck blood from humans. The analysis of this study during the period 1976-2005 is related to natural environmental factors and occurrence of number of malaria