

Epidemiological disparities and risk factors of esophageal cancer in Türkiye: A systematic review

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ABSTRACT

Objectives: Esophageal cancer (EC) is the eighth most diagnosed cancer worldwide and is one of the most lethal. The eastern region of Türkiye, falling within the 'Asian Esophageal Cancer Belt,' is identified as a high-risk area for EC. This study aims to explore the epidemiological patterns of EC in Türkiye, emphasizing regional variations and identifying predominant risk factors.

Methods: We conducted a systematic literature review (SLR) adhering to PRISMA guidelines. The review focused on studies published after the year 2000 involving the adult population, and were available in both Turkish and English. Searches were performed using PUBMED/MEDLINE, ScienceDirect, Google Scholar, WHO.INT, and Turkish databases such as TrDizin, Ulakbim, DergiPark, EKUAL, TezlerYOK, and Turkmedline. Initially, 2230 publications were identified, from which 1295 duplicates were removed. A total of 935 records were screened based on title and abstracts, with 741 being excluded due to irrelevance or non-compliance with eligibility criteria. Eventually, 176 studies were included after eliminating 27 inaccessible reports.

Results: Global data indicated the age-adjusted incidence rate of EC in Türkiye ranges between 2-5 per 100,000 individuals, predominantly affecting males. In contrast, local studies from the eastern regions show incidence rates of 8-14 per 100,000, with a higher prevalence among females. Key regional risk factors were identified including the consumption of very hot tea, use of cow dung in bread-baking tandoors, and a specific herby cheese.

Conclusions: This comprehensive review marks the first extensive examination of EC epidemiology specific to Türkiye, revealing significant regional disparities in incidence and risk profiles. These insights are crucial for healthcare providers and policymakers, and underscore the need for tailored preventive and treatment strategies in the eastern regions of the country, in order to respond to unique epidemiological patterns.