

Epidemiology of gastric cancer in a developing middle eastern country over almost two decades

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Introduction: Gastric malignancies result in significant burden due to the resultant morbidity and mortality. Identifying the epidemiology of gastric cancer in the Middle East, including the incidence and overall survival, are of prominent importance in the policy advocacy, long-term management planning and treatment as it provides adequate risk stratification that is vital in resource limited countries.

Methods: 3518 individuals residing in Jordan who were diagnosed with gastric cancer during the period 2000-2018 were included in the study after retrieval of data from the official registry of cancer studies in Jordan, the Jordan Cancer Registry. Epidemiological statistical analysis was performed to establish the epidemiological characteristics of gastric cancer in Jordan.

Results: 3518 individuals with a mean age of 58.3 ± 13.9 years old were included. A male predominance of 61.7% was noted. The vast majority of the participants (84.9%) were reported to be non-smokers at the time of diagnosis. The most prevalent tumour location was the gastric antrum as found in 71.8% of the patients followed by the gastric cardia which was reported in 11.5% of the patients. Worryingly, 42.2% of the patients had poorly differentiated tumours at the time of diagnosis while only 4.07% of patients had well differentiated tumours. At the time of diagnosis, distant metastasis was identified in a concerning portion of patients (23.5%). In contrast, 11.4% of the patients were found to have localized disease. Among the regional spread subcategories, inclusion of both direct extension and lymph node was the most prevalent as reported in 39.7% of the patients. In regard to the morphology, unspecified adenocarcinoma was the most prevalent gastric malignancy morphology (52%), followed by signet ring cell carcinoma that was identified in 20.2% of the patients. The overall survival was 81.6%, 71.0%, 64.1%, 48.2%, and 38.6% at 1-year, 2-year, 3-year, 4-year, and 5-year interval, respectively. A statistically insignificant increase of 0.6% in the crude incidence of gastric malignancies over 18 years was identified.

Conclusion: Gastric cancer in Jordan demonstrated a drastic variation in comparison to the internationally reported trends in regard to the overall survival and most commonly involved gastric sites. Of particular importance and significance is the overall 5-year survival rate of gastric cancer in Jordan which mandates prompt and effective intervention.