

# Esophageal cancer in northeastern Iran

The northeastern part of Iran in Golestan province is known to have the highest esophageal cancer incidence in the country.<sup>1</sup> Generally, there is a 6:1 male predominance among patients with adenocarcinoma and 3:1 with squamous cell carcinoma of the esophagus. Mahboubi *et al*<sup>2</sup> in 1972 reported an exception to this rule in Gonbad in Golestan province (206 cases per 100,000 male population vs. 263/100,000 females). We conducted a similar retrospective study to assess the incidence of the disease by evaluating documents of patients with pathologically confirmed esophageal cancer from 1996 through 2000 in Golestan province.

Pathology reports of 491 patients (243 men) with esophageal cancer were identified. The age was lower in women (59.9 [11.8] y) than in men (62.9 [11.9];  $p < 0.05$ ). Squamous cell carcinoma was the most common cancer (73.7%), followed by adenocarcinoma (10.4%) and unknown histology (15.9%).

In patients younger than 50 y, there was no association between histology and sex, but in the older age group, squamous cell carcinoma was more common in women (194 cases versus 168) and this association was independent of age ( $p < 0.05$ ). This finding was different from that in a study from northwestern Iran,<sup>3</sup> suggesting that esophageal cancer etiology is probably different in the eastern part of the Caspian Sea (Caspian littoral).

People in the northeastern (Golestan province) and northwestern (Ardabil province) parts of the Caspian Sea have similar ethnic background and speak a language similar to Turkish. Further studies may be needed to capture lifestyle and other factors relevant to the etiology of esophageal cancer.

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## References

1. Rustgi AK, Crawford JM. *Gastrointestinal Cancers*. In: A Companion to Sleisenger and Fordtran's Gastrointestinal and Liver Disease. New York: Saunders. 2003: p. 215-39.
2. Kmet J, Mahboubi E. Esophageal cancer in the Caspian littoral of Iran: initial studies. *Science* 1972;846-53.
3. Parvin S, Firouz S. A study of 415 cases of esophageal carcinoma in northwest of Iran. *Med J Malaysia* 2003;58:429-31.

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