



Esophageal Cancer

Alternative Names

Esophageal Squamous Cell Carcinoma
ESCC

Record Category

Disease phenotype

WHO-ICD

Neoplasms > Malignant neoplasms

Incidence per 100,000 Live Births

6-10

OMIM Number

133239

Mode of Inheritance

Autosomal dominant

Gene Map Locus

16q23.3-q24.1, 13q12.11, 9q32, 8p22, 3p22-p21.3, 3p22

Description

Esophageal cancer is a neoplasm of tissues lining the esophagus. Histologically, this neoplasm may be of two types: squamous cell carcinoma that begins in the flat cells lining the esophagus, and adenocarcinoma which begins with the esophageal secretory cells. In its initial stages, esophageal cancer may not present with any serious symptoms, thereby delaying its diagnosis. In later stages, affected patients may present with pain while swallowing, a feeling of food getting stuck in the throat, weight loss, and chronic cough with occasional coughing up of blood. Since most of these symptoms are general in nature, and could be a part of many other conditions, correct diagnosis assumes great importance. Most people affected with esophageal cancer are diagnosed in their fifth to seventh decades of life. The condition is also more prevalent among people of African origin than among Caucasians. Squamous cell carcinoma is seen

to be more frequent in people who smoke or chew tobacco, consume alcohol, are infected with human papilloma virus, have chronic scarring of the esophagus due to some previous injury, or suffer from a genetic condition called tylosis. On the other hand, people who are affected with Barrett's Esophagus, a condition characterized by intestinal metaplasia towards the esophagus, are at an increased risk for developing adenocarcinoma of the esophagus.

First step in the diagnosis of esophageal cancer is usually an X-ray analysis. Barium swallow as well as endoscopy are also used to further support the diagnosis. Confirmation of the condition usually involves a biopsy of esophageal tissue collected through endoscopy. Since this form of carcinoma has a high rate of malignancy, physicians may also check for any spread of the cancer. This is usually performed through a CAT scan or a bone scan. As in most other neoplasms, treatment is either in the form of surgery, where a part of the esophagus is removed, radiation therapy, chemotherapy, laser therapy, or electrocoagulation. Prognosis depends upon the stage at which the cancer is diagnosed. Of those diagnosed at the earliest stage, about 80-90% have a 5-year survival rate. Unfortunately, there are no early detection tests for the condition. However, people at high risk, such as those affected with Barrett's Esophagus are advised to regularly check themselves up for any neoplastic tissue changes.

Molecular Genetics

As in most cancers, several tumor suppressor and anti-apoptotic genes have been implicated in the genetics of esophageal cancer. These genes include TP53 (Tumor Protein 53), TP15, TP16, Cyclin D1, and BCL-2. Polymorphisms in both ALDH2 (Aldehyde Dehydrogenase 2) gene that are common in certain Asian populations have been shown to confer an increased risk to the development of esophageal cancer. In addition, a locus on



chromosome 17q25 has been found to be associated with tylosis related esophageal cancer.

Epidemiology in the Arab World

Djibouti

Richard et al. (1994) reviewed the cases of 49 patients with esophageal cancer and for whom palliative therapy was indicated. Surgery was performed only in 37 of these patients. Out of 26 patients to whom gastrostomy was proposed, there were 12 that refused and 14 who underwent the procedure with a mean survival of 40 days. Esophageal bypass was performed in 23 patients. In 22 of these patients, the procedure was colon interposition and in the remaining case a gastric tube was used. There was one postoperative death. Excluding three patients that suffered cervical fistulas and one patient who required redo to remove a textiloma, postoperative recovery was uneventful. Patients resumed eating and were able to return home less than one month after the procedure. This study demonstrates that colon interposition can be performed in Black Africa despite limited availability of preoperative and postoperative intensive care facilities. It is a useful alternative for the management of malignant and benign stenosis.

Qatar

Ejeckam et al. (1993) reviewed all cases of patients diagnosed with esophageal cancer in Qatar between 1984 and 1990. Of the total of 41 cases diagnosed during this period, 30 (73.2%) were Qatari nationals. Interestingly, five of these Qatari patients belonged to a single family, underlining a familial basis for this condition. Of the 30 Qatari patients, 17 were females. Mean age at diagnosis for male patients was 63.8 years, while that for females was 60.1 years. All of the patients presented with dysphagia. Other common presentations were weight loss, nausea and vomiting, and loss of appetite. Histologically, most of the cancers were in the mid and lower esophagus, and were of the squamous cell type.

Sudan

While reviewing cases esophageal cancer in Qatar Ejeckam et al. (1993) encountered one Sudanese female with the disease [See also: Qatar > Ejeckam et al., 1993].

United Arab Emirates

While reviewing cases esophageal cancer in Qatar Ejeckam et al. (1993) one Emirati female with the disease [See also: Qatar > Ejeckam et al., 1993].

References

- Ejeckam GC, Ahmed FA, Azadeh B. Esophageal cancer in Qatar. *Trop Geogr Med.* 1993; 45(1):25-7. PMID: 8470302
- Richard J, Ansiaux JP, Bizeau F, Casaban D, Grébert P, Mounir B, Blonz JM, Mary G, Tranier T. [Palliative surgery of esophageal cancer in Djibouti: the value of colonic esophagoplasty]. *Med Trop (Mars).* 1994; 54(3):235-8. PMID: 7533874

Related CTGA Records

N/A

External Links

- http://www.cancer.org/docroot/cric/content/cric_2_4_1x_what_is_esophagus_cancer_12.asp?sitearea=cric
- <http://www.cancerhelp.org.uk/help/default.asp?page=4478>
- <http://www.ecaware.org/>
- <http://emedicine.medscape.com/article/277930-overview>
- <http://www.mayoclinic.com/health/esophageal-cancer/DS00500>
- <http://www.oncologychannel.com/esophagealcancer/index.shtml>

Contributors

- Ghazi O. Tadmouri: 16.6.2009
- Pratibha Nair: 5.5.2009

