



Title	Initial Staging of Esophageal Cancer: Systematic Review of the Performance of Diagnostic Methods
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Aim

To systematically review the literature on the performance of diagnostic methods used for clinically staging esophageal cancer.

Conclusions and results

Most of the studies reviewed were characterized by poor methodological quality, small sample sizes, and little evidence regarding certain technologies. The many methodological limitations of the studies we examined did not enable us to draw any firm conclusions. Taking these limitations into account, AETMIS has drawn several conclusions that are consistent with several existing practice guidelines. A combination of techniques must be used for optimal clinical staging of esophageal cancer. A diagnostic test sequence for clinical staging is proposed: 1) start with a computed tomography (CT) scan of the neck, thorax, and abdomen to determine the presence of any distant metastases; 2) if no distant metastases are present, use endoscopic ultrasound (EUS) to evaluate locoregional invasion and celiac lymph nodes and EUS fine-needle aspiration (FNA) if the tumor does not obstruct the needle. If a stenosing tumor is present, the optimal approach is not known, but dilatation is indicated, except in the case of severe stenosis, and should be carried out in centers possessing considerable expertise; 3) add positron emission tomography to computed tomography (PET-CT) in the cancer staging process if the patient is deemed eligible for curative treatment after a CT scan and EUS; 4) use magnetic resonance imaging (MRI) if CT cannot be performed; 5) perform minimally invasive surgical procedures in certain situations, eg, laparoscopy, to evaluate abdominal metastases when the cancer is located in the gastroesophageal junction.

Methods

A systematic review of the scientific literature focused on the performance of diagnostic tests used in clinical staging of cancer of the esophagus and gastroesophageal junction not associated with stomach cancer. The review of primary studies covered January 1999 to December

2007 in the MEDLINE (PubMed) and Cochrane Library databases. A literature watch for systematic reviews and guidelines continued until July 2008.

Further research/reviews required

Primary studies of better methodological quality are required, eg, prospective studies featuring a blinding interpretation between diagnostic test outcomes and histopathological analysis findings. Moreover, additional studies comparing PET-CT to other diagnostic tests, eg, EUS-FNA and CT, for initial staging are also necessary. More studies need to compare MRI to other modalities in staging esophageal cancer.