Radiotherapy and Oncology 80 (2006) 302–306

Head and neck radiotherapy

Aspiration rate following chemoradiation for head and neck cancer: An underreported occurrence

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Abstract

Background and purpose: We would like to assess the prevalence of aspiration before and following chemoradiation for head and neck cancer.

Patients and methods: We reviewed retrospectively the Modified Barium Swallow (MBS) in 63 patients who underwent concurrent chemotherapy and radiation for head and neck cancer. MBS was performed prior to treatment to determine the need for immediate gastrostomy tube placement. MBS was repeated following treatment to assess the safety of oral feeding prior to removal of tube feeding. All patients were cancer free at the time of the swallowing study. No patient had surgery. Dysphagia severity was graded on a scale of 1–7. Tube feedings were continued if patients were diagnosed to have severe aspiration (grade 6–7) or continued weight loss. Patients with abnormal swallow (grade 3–7) received swallowing therapy following MBS.

Results: Before treatment, there were 18 grade 1, 18 grade 2, 9 grade 3, 8 grade 4, 3 grade 5, 3 grade 6, and 4 grade 7. Following chemoradiation, at a median follow-up of 2 months (1–10 months), one patient had grade 1, eight patients had grade 2, nine patients had grade 3, eight patients had grade 4, 13 patients had grade 5, seven patients had grade 6, and 11 patients had grade 7. Six patients died from aspiration pneumonia (one before, three during, and two post-treatment), and did not have the second MBS. Overall, 37/63 (59%) patients developed aspiration, six of them (9%) fatal. If we excluded the 10 patients who had severe aspiration at diagnosis and the six patients who died from pneumonia, the prevalence of severe aspiration was 33% (21/63).

Conclusions: Aspiration remained a significant morbidity following chemoradiation for head and neck cancer. Its prevalence is underreported in the literature because of its often silent nature. Diagnostic studies such as MBS should be part of future head and neck cancer prospective studies to assess the prevalence of aspiration, and for rehabilitation.

Keywords: Aspiration; Chemoradiation; Head and neck cancer