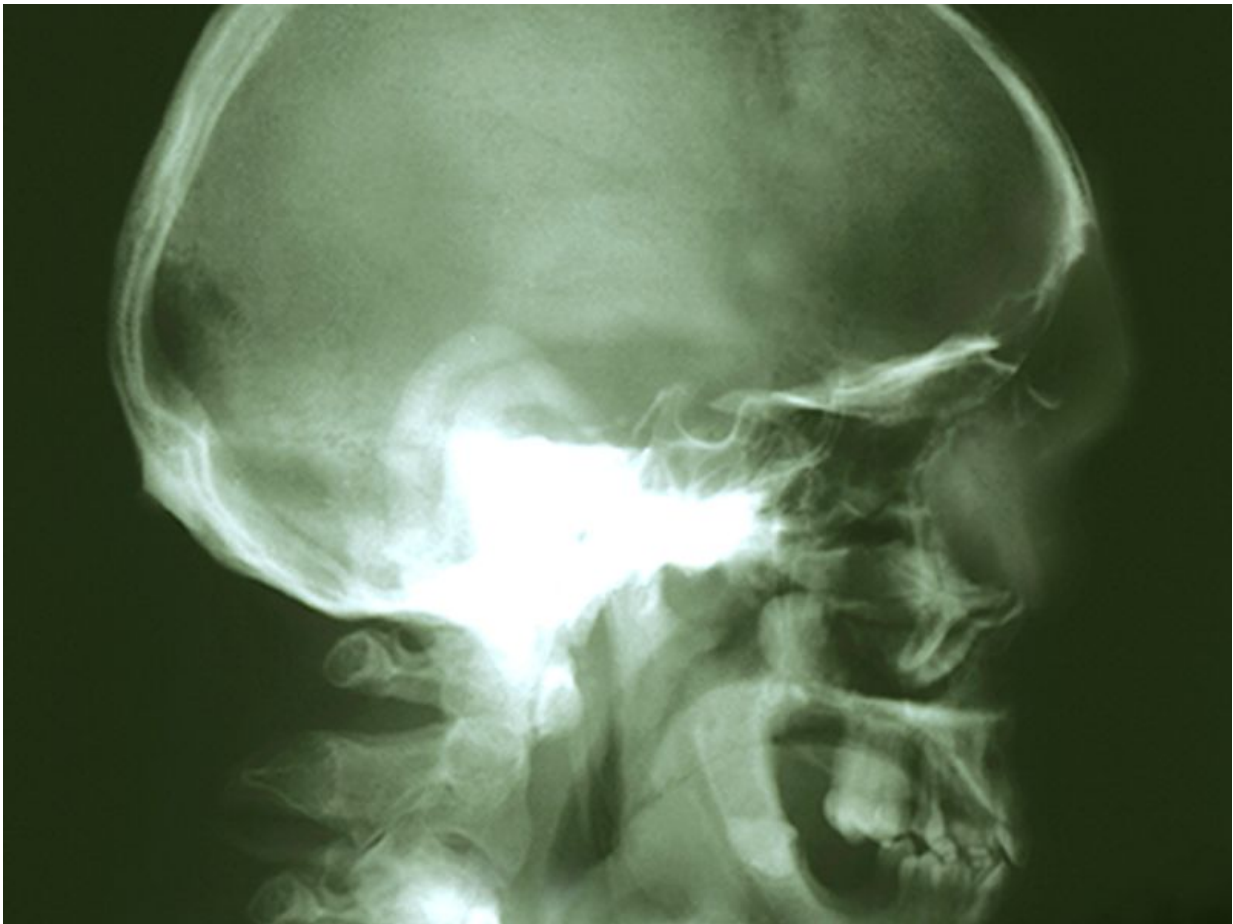# CT-gross tumor volume predicts outcome in larynx preservation

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(HealthDay)—For patients undergoing larynx preservation, pretreatment

computed tomography-gross tumor volume (CT-GTV) is predicative of an increase in time with tracheostomy and percutaneous endoscopic gastrostomy (PEG), according to a study published online April 30 in *Head & Neck*.

Newton J. Hurst Jr., M.D., Ph.D., from Wayne State University in Detroit, and colleagues examined the predictive value of pretreatment GTV for persistence of tracheostomy and PEG tube in larynx preservation patients. Before initiation of therapy, 75 patients underwent CT and the GTV was contoured. GTV information was available for 41 patients.

The researchers found that threshold GTVs of 27.16 cc and 12 cc were identified for association of time with a tracheostomy and PEG tube, respectively, using recursive partitioning analysis. For time with tracheostomy, the median times above and below these thresholds were 1.84 and 0.75 years, respectively ($P = 0.03$); the corresponding values were 1.75 and 0.84 years for time with PEG tube ($P = 0.10$).

"We demonstrate here that pretreatment CT-GTV is predictive of an approximately 2.5-fold and approximately 2-fold, respectively, increase in length of time with a tracheostomy and a PEG tube—two surrogates for poor functional outcomes and reduced quality of life," the authors write.

  More information: Abstract
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volume-outcome-larynx.html