

Study suggests improvements in how mesothelioma is staged

February 2 2016

A new study suggests that significant improvements could be made in the scoring system physicians use to estimate the stage (severity) of mesothelioma, an aggressive and deadly cancer.

The current [scoring system](#) incorporates such factors as the size of the tumor and whether it has spread to other parts of the body. The study's findings suggest that, in addition, tumor weight and volume "may be valuable components for staging [malignant pleural mesothelioma](#)."

An improved scoring system could provide a more accurate prognosis and help guide treatment, said lead author Wicki Vigneswaran, MD, MBA, who now is at Loyola University Medical Center and Loyola University Chicago Stritch School of Medicine. Dr. Vigneswaran has performed nearly 200 mesothelioma surgeries, and he is among only a handful of surgeons nationwide who treat mesothelioma surgically.

The study is published in the [*European Journal of Cardio-Thoracic Surgery*](#).

Mesothelioma occurs in the layer of tissue that covers internal organs. The most common type, malignant pleural mesothelioma, affects the tissue that surrounds the lungs (pleural).

Staging a malignancy is an important prognostic tool and plays a fundamental role in patient management. The current classification system, known as tumor/node/metastasis (TNM), considers the size and

extent of the tumor, the amount of spread to nearby lymph nodes and whether there has been metastasis (spread of cancer to other parts of the body).

CT scans and MRIs used to determine TNM staging are more precise in measuring discrete tumors such as those in lung cancer. But TNM is less precise in staging mesothelioma, which is diffuse, varies in thickness and has a similar density to surrounding tissues. So Dr. Vigneswaran and colleagues examined whether measuring tumor volume also could predict outcomes.

The study included 116 patients (95 males and 21 females). The median age was 68, with an age range of 43 to 88. As the volume (and therefore the weight) of the tumor increased, survival decreased. The median survival was 26.94 months in patients with tumor volumes between 0 and 300 millimeters; 19.45 months for tumor volumes between 301 and 600 ml.; 12.68 months for tumor volumes between 601 and 900 ml. and 11.7 months for tumor volumes greater than 901 ml. (By comparison 901 ml. equals about 30.4 oz.) While not surprising, the finding that larger tumor volumes were associated with shorter survivals had not been demonstrated previously.

The finding that tumor volume and weight are significant predictors of survival needs further validation in larger, multicenter studies, Dr. Vigneswaran and colleagues reported. Dr. Vigneswaran performed the study at the University of Chicago. He recently joined Loyola, where he is the division director of Thoracic Surgery and a professor in the Department of Thoracic and Cardiovascular Surgery at Loyola University Chicago Stritch School of Medicine.

The study is titled "Specimen weight and volume: important predictors of survival in malignant plural mesothelioma." It was funded by Mesothelioma Heroes Foundation of Chicago.

Provided by Loyola University Health System

Citation: Study suggests improvements in how mesothelioma is staged (2016, February 2)
retrieved 8 May 2024 from <https://medicalxpress.com/news/2016-02-mesothelioma-staged.html>

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