Abstract

＜Purpose＞

The number of elderly patients who undergo surgery is increasing, even though they are at high risk due to decreased physical strength. Further, sarcopenia is generally associated with poor prognosis in patients with non-small cell lung cancer (NSCLC).

＜Methods＞

This study included NSCLC patients over the age of 65 who underwent pulmonary resection in our hospital between 2012 and 2015. Sarcopenia was assessed using psoas muscle mass index based on computed tomography imaging at the level of the third lumbar vertebra. We elucidated the impact of sarcopenia on short- and long-term outcomes after surgery.

＜Results＞

We enrolled 259 patients, including 179 patients with sarcopenia. Patients with sarcopenia before surgery tended to have postoperative complications (p = 0.0521), although they did not show a poor prognosis. In patients with sarcopenia, multivariate analysis revealed that postoperative complications and the progression of sarcopenia one year after surgery were significant risk factors for poor prognosis (p = 0.0169 and 0.00370, respectively).

＜Conclusions＞

The progression of sarcopenia after surgery is associated with poor prognosis in the elderly NSCLC patients with sarcopenia. A strategy to prevent postoperative progressive sarcopenia may be necessary for the improvement of the clinical outcome of this population.

Keywords: Sarcopenia, elderly patient, non-small cell lung cancer, pulmonary resection