



# ASO Author Reflections: Impact of a Preoperative Home-Based Exercise Program on Quality of Life After Lung Cancer Resection

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## PAST

Surgical resection is the cornerstone of curative treatment for patients with lung cancer. Nevertheless, it often leads to functional limitations and symptoms of pain, fatigue, and dyspnea, which have a detrimental impact on patients' health-related quality of life (HRQoL).<sup>1</sup>

Preoperative exercise training improves aerobic capacity and reduces the incidence of pulmonary complications after lung cancer surgery;<sup>2,3</sup> however, it remains unclear whether this intervention could prevent the decline in postoperative HRQoL.<sup>2</sup> Moreover, although it is known that patients awaiting major cancer surgery prefer to exercise in a home-based environment,<sup>4</sup> few randomized controlled trials have investigated the effects of preoperative home-based exercise training (PHET) in lung cancer patients.<sup>3</sup>

## CURRENT

A multicenter, randomized controlled trial was designed to explore the effects of a PHET program on HRQoL in lung cancer patients undergoing surgery.<sup>5</sup> PHET consisted of aerobic plus resistance training, with weekly telephone supervision. The study results showed that PHET significantly

improved global quality of life at pre- and post-surgery. At 1-month post-surgery, the PHET group exhibited significantly better physical, emotional, and role functions, along with fewer symptoms of pain and appetite loss, than the control group. These findings contribute to the advancement of knowledge in surgical oncology by providing evidence that the integration of PHET in the routine perioperative care of lung cancer patients may improve symptom management and prevent the deleterious effects of surgery on HRQoL.

## FUTURE

Given that HRQoL may not be fully recovered 12 months after lung cancer surgery,<sup>1</sup> future research should examine the long-term effects of PHET on HRQoL. In addition, large-scale clinical trials are needed to investigate the effects of PHET on postoperative complications and to identify which subgroup of patients might benefit most from this intervention. To determine the optimal dosage of PHET, future studies should also explore the tolerability and efficacy of different training doses.

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