

Acute pulmonary embolism – Aspects of respiratory symptoms and physical activity

Akademisk avhandling

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Avhandlingen baseras på följande delarbeten

- I.** Danielsbacka JS, Fagevik Olsén M, Hansson P-O, Mannerkorpi K. Lung function, functional capacity, and respiratory symptoms at discharge from hospital in patients with acute pulmonary embolism: A cross-sectional study. *Physiother Theory Pract.* 2018;34(3):194-201.
- II.** Danielsbacka JS, Hansson P-O, Mannerkorpi K, Olsén MF. Physical activity and respiratory symptoms after pulmonary embolism. A longitudinal observational study. *Thromb Res.* 2020;189:55-60.
- III.** Danielsbacka JS, Rostberg L, Olsén MF, Mannerkorpi K. “Whole life changed” - Experiences of how symptoms derived from acute pulmonary embolism affects life. A qualitative interview study. *Thromb Res.* 2021;205:56-62.
- IV.** Danielsbacka JS, Mannerkorpi K, Fagevik Olsén M. Health care professionals’ conceptions of respiratory symptoms and physical activity in patients with acute pulmonary embolism. A phenomenographic interview study. Accepted for publication in *Thrombosis Research*.

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Abstract

The overall aim of this thesis was to cross-sectionally and longitudinally evaluate and describe respiratory symptoms and physical activity in patients with pulmonary embolism (PE) through both quantitative and qualitative research. To describe conceptions of health care professionals concerning respiratory symptoms, physical activity and information given was also part of the overall aim.

Study I: In this cross-sectional study 50 patients with PE performed spirometry, six-minute walk test (6MWT) at the day for discharge, and measurement was compared to reference values. Ratings of dyspnea and respiratory pain was collected. The results indicates that patients with PE have a reduced lung function, reduced functional capacity compared to reference values, and experience respiratory symptoms as pain and dyspnea at discharge.

Study II: In this longitudinal study 64 patients with PE were investigated during hospitalization and 3, 6 and 12 months after discharge. Spirometry, 6MWT, ratings of physical activity (PA), dyspnea and respiratory pain was performed. Median PA increased during the year. Respiratory symptoms and lung function improved during the first 3 months, whereas functional capacity improved during the whole year after. These results indicate that PA after PE is safe and can be recommended to patients, at least if no severe cardiovascular co-morbidity is present.

Study III: Qualitative interviews were conducted with 14 patients, with median time of 7 months (range 3–34 months) since the PE and analyzed with qualitative content analysis according to Graneheim and Lundman. The results indicate that patients with PE need support from the healthcare system to manage both psychological and physical symptoms in the aftermath of their illness.

Study IV: Qualitative individual interviews were conducted with 21 healthcare professionals working with patients with PE and analyzed with a phenomenographic approach. The patient group was conceived as heterogenous with different needs of information given at the right time. Structural prerequisites, as time and staff rotation in the hospital setting, and personal issues as levels of knowledge of PE amongst healthcare professionals affected the possibilities to give correct information.

Keywords: pulmonary embolism, symptoms and signs; respiratory, dyspnea, spirometry, activity leisure, walk test, qualitative research