MEDIA RELEASE
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Less pain and more to gain for patients with metastatic breast cancer who exercise

Structured exercise can improve quality of life and reduce side effects, such as fatigue and pain, in patients with metastatic breast cancer, according to new global research published in *Nature Medicine* today.

Australian Catholic University's Dr Eva Zopf, from the Mary MacKillop Institute for Health Research, led the study in Australia in collaboration with Peter MacCallum Cancer Centre, Melbourne Health and Cabrini Health.

It found supervised exercise during palliative treatment for metastatic breast cancer had significant beneficial effects on patients' fatigue, quality of life and common side-effects such as pain and shortness of breath.

It is the first large-scale study to investigate the effects of exercise in this patient population and builds on a growing body of research showing that exercise can be a valuable companion to cancer treatment.

Dr Zopf said breast cancer treatment has a devastating effect on people's lives, causing serious health issues that compromise physical and mental wellbeing including fatigue, nausea, pain, and shortness of breath.

She said patients with metastatic disease experience significant symptoms as they often undergo continuous treatment and improving their quality of life is important.

"Previous research has primarily looked at the effects of exercise programs on patients with less advanced cancer and found it was beneficial – especially boosting patient's energy levels and improving their quality of life – but patients with metastatic disease had not been rigorously studied to see if they experienced the same benefits," Dr Zopf said.

The PREFERABLE-EFFECT trial involved 357 patients with metastatic breast cancer from Australia, the Netherlands, Germany, Spain, Poland, and Sweden.

All study participants received a physical activity tracker and generic exercise advice, but 178 patients were randomly assigned to a supervised exercise program for nine months involving balance, resistance, and aerobic exercises.

The first six months included two one-hour supervised exercise sessions per week. In the last three months, one supervised session was replaced by an unsupervised exercise session which was supported by an exercise app. Patients exercised at moderate to high intensity levels under the supervision of qualified exercise physiologists.

"Patients have told us that they not only felt better and stronger being part of the trial but also that it helped them better understand what they need to be doing in terms of exercise," Dr Zopf said.

Study co-author and clinical co-lead of Breast Medical Oncology at Peter MacCallum Cancer Centre Professor Prue Francis said regular exercise is commonly recommended for patients diagnosed with early-stage breast cancer.

"This important randomised trial has found that regular supervised exercise also significantly reduces fatigue and improves quality of life in patients with metastatic breast cancer. In addition, beneficial effects in physical functioning and pain were seen with exercise."

Researchers have now called for supervised resistance and aerobic exercise to be routinely prescribed to patients with metastatic breast cancer as a part of supportive cancer care.

Cancer affects one in two Australians, with one diagnosed every four minutes. Breast cancer is the most diagnosed cancer in the world yet the vast majority of those diagnosed do not meet the current exercise guidelines for cancer patients during and after their treatment.

Dr Zopf said every one of those patients would benefit from exercise.

The international study was led by Professor Anne May from the Julius Center for Health Sciences and Primary Care at the University Medical Centre in the Netherlands. Funding for this study was provided by the European Union's Horizon 2020 research and innovation program and by the National Health and Medical Research Council of Australia.

Dr Zopf is available for interview.

Media Contact: *Elisabeth Tarica, Australian Catholic University on 0418 756 941 or elisabeth.tarica@acu.edu.au*

Danny Rose, Peter MacCallum Cancer Centre on 0417 123 048 or danny.rose@petermac.org