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## INTRODUCTION

There is a growing interest in the literature on the influence of physical activity on quality of life. Preliminary studies suggest that physical activity may be an effective intervention to improve quality of life in breast cancer patients, and reduce the risk of recurrence and mortality, thus prolonging the survival of these women (Ibrahim, Al-Homaidh, 2011; Maryam et al, 2010; Phillips, Mcauley, 2014). However, The influence of physical activity (PA) in quality of life (QV) has been little investigated in Brazilian women with breast cancer, while chemotherapy is a major determinant for changing the quality of life (Schmidt et al, 2015).

## OBJECTIVE

To evaluate the influence of physical activity on quality of life in women submitted to chemotherapy with Adriamycin and Cyclophosphamide (AC) for the treatment of breast cancer.

## MATERIAL E METHODS

This is a cohort study of women 18 years or older diagnosed with breast cancer (ICD C50) with chemotherapy prescription. Were excluded: clinical stage IV, using auxiliary gear devices, with previous personal history of cancer, no clinical or psychological conditions to respond to the questionnaire, which participate in institutional clinical research protocol. Patients were recruited from the 1st time consultation in clinical oncology unit or during the preoperative period (figure 1 and figure 2). All were re-evaluated after chemotherapy. The outcome, quality of life, will be evaluated through the application of the EORTC QLQ-C30 3rd version (European Organization for Research and Treatment of Cancer Quality of Life Questionnaire) and the specific module of breast cancer - EORTC QLQ-BR23, translated and Validated for the Portuguese language (FAYERS, BOTTOMLEY, 2002). The EORTC QLQ-C30 questionnaire includes 30 questions, divided into five functional scales (physical function, cognitive function, emotional function, social function and role function), three symptom scales (fatigue, pain, nausea and vomiting) and a scale of General health and global QOL. The EORTC QLQ-BR23 questionnaire comprises 23 questions and is divided into two dimensions: functional scale (body image, sexual function, sexual satisfaction and future perspectives) and the scale of symptoms (side effects of chemotherapy, arm related symptoms breast and concern about hair loss). The main independent variable, physical activity, will be evaluated through the long version of the International Questionnaire of Physical Activity (IPAQ), which evaluates, during a last week or a typical week, the frequency and duration of practicing work activities, as a means Transportation, domestic and leisure activities and time spent sitting. From the information in this questionnaire, the energy expenditure in METs / hour per week (metabolic equivalent) will be calculated. This questionnaire was translated into Portuguese and validated for the Brazilian population (MATSUDO et al, 2001). A descriptive analysis of the study population will be performed. To evaluate the association between physical activity and quality of life, a simple and multiple linear regression will be performed considering the 95% IC. This project was approved by Ethics Committee and Research (CEP / INCA).

## CURRENT SITUATION OF THE PROJECT

To date, 396 patients were included in the study. Of these, 296 were submitted to neoadjuvant chemotherapy and 101 were subjected to adjuvant chemotherapy. The follow-up data are being collected. To date, 119 patients were interviewed following neoadjuvant chemotherapy and 41 patients following adjuvant chemotherapy (figure 3). with end a follow-up scheduled for september, 2017.

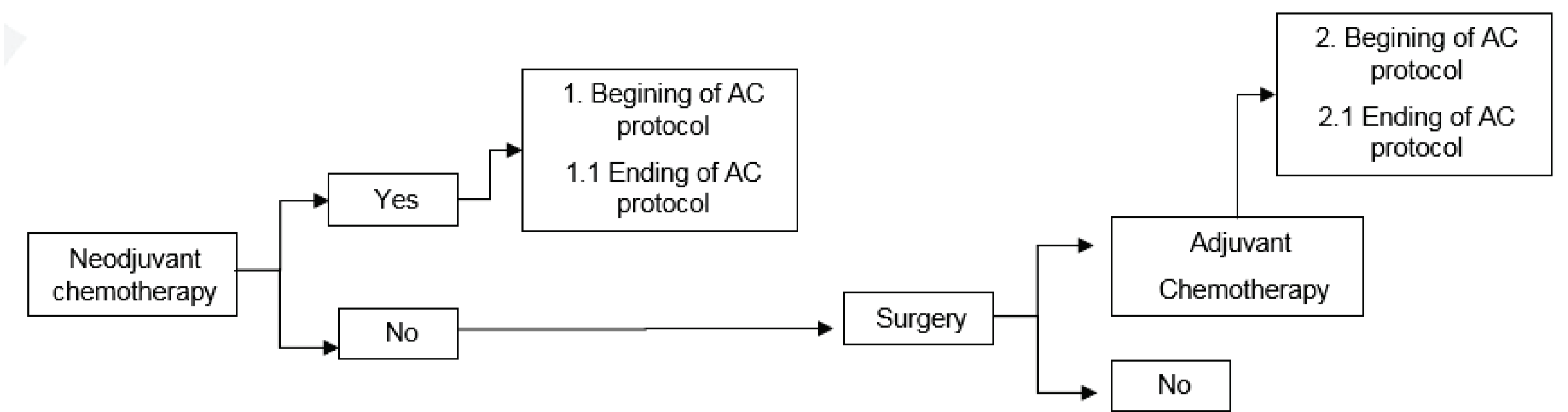


Figure 1. Study flowchart:

Moment	Interview	Physical evaluation	Physical activity (IPAQ)	Quality of life EORTC QLQ C30 e BR23	Depression (GDS-15)	Fatigue (FACIT-Fatigue)
1	X	X	X	X	X	X
1.1		X	X	X	X	X
2		X	X	X	X	X
2.1		X	X	X	X	X

Figure 2. Moment of application of the interview and questionnaires, according to the flowchart.

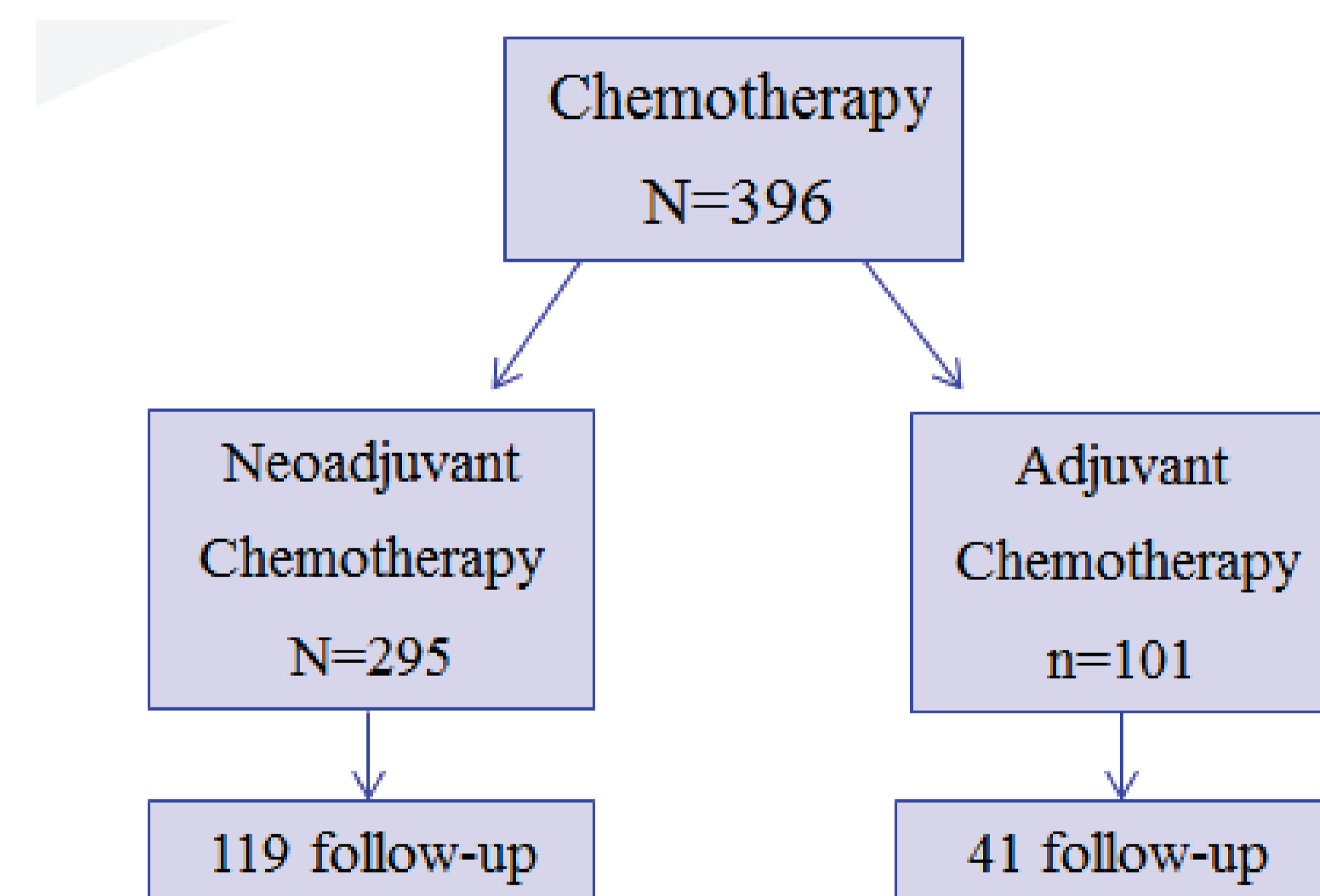


Figure 3. Current situation of the project

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