software was performed and logistic regression was used to determine the risk factors of CIA.

Results: From 226 patients who entered the study, 154 patients (68.1%) were developed CIA, which in 101 patients (65.6%), CIA was established and never resumed. CIA was present in 52.5% of patients treated with conventional regimens (CMF), in 66.7% of patients treated with anthracyclines and in 78.7% of patients treated with anthracycline-taxan ($p = 0.015$). Although a slightly superior incidence of CIA in patients with hormone-insensitive tumors (ER− and PR−) versus hormone-sensitive tumors (ER+/or PR+) treated with combination regimens was observed, no statistically significant difference was found ($p = 0.629$). From all risk factors that evaluated, anthracycline-taxan based regimen (OR: 4.1, CI95%:1.6–10.2) and age >40 yrs (OR: 3.2, CI95%: 1.7−6.1) were the most important factors in developing CIA in the study.

Conclusion: Type of chemotherapy and age at the breast cancer diagnosis are the most important risk factors in CIA.

376 Poster

Is arthralgia observed in patients treated with adjuvant aromatase inhibitors for breast cancer related to inflammatory rheumatism? Rheumatologic evaluation of a cohort of 36 patients

E. Biver[1], L. Vanlemmens[2], I. Gérot Legroux[1], M.H. Vieillard[3], N. Boutry[4], J. Bonneterre[2], B. Cortet[1]. *[1]CHRU de Lille Hôpital Roger Salengro, Rheumatology, Lille Cedex, France; [2]Centre Oscar Lambret, Sénologie, Lille Cedex, France; [3]Centre Oscar Lambret CHRU de Lille Hôpital Roger Salengro, Oncology Rheumatology, Lille Cedex, France; [4]CHRU de Lille Hôpital Roger Salengro, Radiology, Lille Cedex, France*

Background: Arthralgia are frequent side effects in patients treated with aromatase inhibitors (AI). The objective of this study was to determine the rheumatologic pattern of these arthralgia.

Material and Methods: An evaluation of patients treated with AI reporting arthralgia was performed, including a clinical examination, biological (inflammatory and immunologic) and morphologic (radiography, ultrasonography and/or MRI) assessments.

Results: 36 patients, treated with anastrozole (28), letrozole (6) or exemestane (2), were evaluated. Seven patients had previously received tamoxifen, 15 chemotherapy. The average time of onset's pain was 3 months after starting AI. Patients reported either polyarthralgia of the hands, wrists, knees, ankles, feet (24/36), or isolated pain of the hands and wrists (10), ankle (1) or knees (1). Stiffness (9), myalgia (7), synovitis (2), tenosynovitis (2), carpal tunnel syndrome (7) were also identified on clinical examination. On biological assessments, only 5 patients had moderate elevation of CRP, without any other obvious etiology. CPK were normal. Rheumatoid Factor and Anti-CCP antibodies (specific rheumatoid arthritis antibodies) were negative, Antinuclear antibodies were positive at low levels (1/80 to 1/640) in 7 patients without any specificity or argument for systemic diseases. X rays showed hand, trapezometacarpal or knee osteoarthritis in two thirds (24/36) of the patients. Two patients had chondrocalcinosis, 2 calcaneal enthesopathies, and none had radiographic evidence for rheumatoid arthritis. On the 29 ultrasonographies, synovitis were observed in 55% and tenosynovitis in 41% of the patients. Only 3 patients had erosions associated with osteoarthritis. MRI of the hand, performed in 25 patients, showed synovitis in 76% and tenosynovitis in 60% of the patients, frequently on the ulnar extensor of the carpus (78%) and de Quervain's tenosynovitis (21%). There was no erosion, but a significant incidence of hand osteoarthritis.

Conclusion: This study confirms the absence of specific inflammatory rheumatism such as rheumatoid arthritis or Gougerot Sjögren syndrome associated to arthralgia in patients treated with AI. Synovitis and tenosynovitis associated with osteoarthritis underlines the link between oestrogen deficiency and local inflammation.

377 Poster

Patient-reported outcomes in breast cancer patients undergoing endocrine therapy (PRO-BETh): adherence rates and symptom burden over the disease trajectory

V. Meraner[1], A. Oberguggenberger[1], J. Giesinger[1], M. Hubalek[2], B. Beer[3], B. Schubert[3], B. Sperner-Unterweger[1], B. Holzner[1]. *[1]Medical University Innsbruck, Department of Psychiatry and Psychotherapy, Innsbruck, Austria; [2]Medical University Innsbruck, Department of Gynecology, Innsbruck, Austria; [3]Medical University Innsbruck, Department of Legal Medicine, Innsbruck, Austria*

Background: Only few studies have investigated the issue of breast cancer patients' adherence to aromatase inhibitor (AI) therapy and factors influencing adherence behavior. These limited results are inconsistant and vary due to heterogeneous study designs and methodological problems. The main objective of our study was the comprehensive evaluation of adherence rates over the course of AI therapy in post-menopausal breast cancer patients using a multi-method approach. We focused on the impact of patient-reported physical symptoms and psychosocial burden on patients' adherence behavior.

Materials and Methods: Breast cancer patients who met inclusion criteria were consecutively included in the study at the outpatient unit of the Department of Gynecology, Innsbruck Medical University. Within their routine after care appointment patients completed a comprehensive patient-reported outcome (PRO) assessment including the FACT-ES, the HADS. In addition, adherence was rated by the treating physician.

Results: 169 patients (mean age 64.2 SD 8.7) within AI therapy at least 3 months and no more than 5 years after primary treatment were included in the study. 10 patients (5.9%) were rated as being non-adherent. We found no significant differences between adherent and non-adherent patients with regard to PRO scales. A trend level significance in favour of non-adherent patients was found for endocrine symptoms (effect size 0.69; $p = 0.08$) and depression (effect size 0.75; $p = 0.09$).

Conclusion: In contrast to the literature we found very high adherence rates. Our results suggest, that there might be an association between adherence and depression and endocrine symptom burden. Further research is necessary to explore causal relations between these factors which are supposed to be interdependent. Due to the low proportion of patients rated as being non-adherent, group comparisons suffered from a relevant lack of power. As patient recruitment for this study is still ongoing, this might be overcome.

378 Poster

A multicentre prospective longitudinal study establishing level II evidence of health related quality of life after types of immediate latissimus dorsi (LD) breast reconstruction

Z. Winters[1], J. Haviland[2], J. Mills[2], J. Benson[3], M. Galea[4], P. McManus[5], S. Nicholson[6], E. Weiler-Mithoff[7], Z. Rayter[8], H. Thomson[1]. *[1]Bristol Royal Infirmary, Clinical Science South Bristol, Bristol, United Kingdom; [2]The Institute of Cancer Research, Clinical Trials and Statistics Unit, Sutton, United Kingdom; [3]Addenbrooke's Hospital, Cambridge Breast Unit, Cambridge, United Kingdom; [4]Western General NHS Foundation Trust, The Breast Unit, Swindon, United Kingdom; [5]Hull and East Yorkshire Hospitals NHS Trust, The Breast Unit, Hull, United Kingdom; [6]York Hospitals NHS Trust, The Breast Unit, York, United Kingdom; [7]NHS Greater Glasgow and Clyde, The Breast Unit, Canniesburn, United Kingdom; [8]University Hospitals of Bristol NHS Foundation Trust, The Breast Unit, Bristol, United Kingdom*

Introduction: NICE recommends that the majority of women recommended to undergo mastectomy should be offered immediate breast reconstruction with its potential benefits to improve health related quality of life (HRQL). A systematic review shows poor and conflicting evidence with a lack of 'hard' data to best inform both clinicians and their patients. Our aim was to evaluate the effects of implant-assisted LD (LDI) versus autologous LD (ALD) breast reconstruction on HRQL over 12 months.

Methods: An MREC approved prospective longitudinal cohort study involving 6 centres commenced in early 2007. Serial patient reported outcome measures using the EORTC C30 (global QL, role and social functioning, fatigue, pain), BR-23 (breast and arm symptoms), 10 item Body Image Scale (BIS) and HADS, were completed pre-operatively and at 3, 6, 12 and 24 months after surgery. Longitudinal analyses used GEE models to test for effects of treatment variables, baseline HRQL, age and time on QL domains from 3 to 12 months. A cut-off for significance was set at $p = 0.01$ to account for multiple testing.

Results: 171 patients (93 ALD, 78 LDI) were recruited to the study with a mean age of 50 years (range 22−70). Compliance with questionnaires at all time points was between 85−90%. There were no significant differences in HRQL domains between LDI and ALD or according to whether radiotherapy was given. Chemotherapy patients reported poorer overall HRQL ($p < 0.001$), poorer role ($p = 0.003$) and social ($p = 0.01$) functioning, and greater fatigue ($p = 0.002$) and depression ($p = 0.01$). Levels of body image concerns and anxiety were significantly better in older patients ($p = 0.01$). Significant improvements over time were seen for overall HRQL, role and social functioning, fatigue and pain ($p < 0.001$). Radiotherapy was not associated with significantly more breast symptoms in the ALD group ($p = 0.06$). There were no significant differences between LDI and ALD in terms of patient satisfaction with outcome of their surgery. Good satisfaction with overall breast appearance and with the overall outcome of the surgery was significantly associated with fewer body image concerns. Follow-up is continuing.

Conclusion: There is an important need for cumulative clinical evidence in this field on which to base patient informed consent and clinical recommendations.