OP0151

AUTOANTIBODIES AGAINST DENSE-FINE-SPECKLED 70 (DFS70) DO NOT ENTIRELY EXCLUDE CONNECTIVE TISSUE DISEASES

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Background: Antinuclear antibodies (ANA) are serological markers for the presence of rheumatic diseases [1]. In some patients, a pattern can be detected in ANA immunofluorescence that resembles an anti-dense-fine-speckled-70 antibody [2]. This is detected less frequently in patients with connective tissue diseases (CTD) and is therefore often used as an exclusion criteria for a CTD [2]. To date, however, it is not clear how the presence of an anti-DFS70 autoantibody will reliably rule out CTDs.

Objectives: To examine the degree to which CTDs can be excluded from either a positive test and whether there are discrepancies between patients with CTDs and a negative anti-DFS70 test and those with CTDs and a positive anti-DFS70 test.

Methods: We analyzed data of 460 patients who were tested for the presence of the DFS70 antibody at the University Hospital Bonn, Germany. Patients were examined with regard to clinical symptoms and signs, type of disease, type of CTD, fulfillment of the classification criteria for the particular CTD, DFS70 antibodies, other autoantibodies and ANA titer. Gold standard for presence of a CTD was the diagnosis of the treating rheumatologist.

In addition to variations between patients with CTD and positive or negative DFS70 antibodies, specificity, sensitivity and positive predictive value were calculated for different ANA titers.

Results: Of the 460 patients, 79.8% were female and 182 were diagnosed with a CTD. 354 patients (77.0%) were tested negative, 81 (17.6%) positive and 25 (5.4%) had a borderline anti-DFS70 autoantibody result.

We identified 21 patients with a positive test result in the presence of a CTD, which accounts for 25.9% of all anti-DFS70 autoantibody positive tested patients. We found no significant differences in DFS70-positive patients with CTD in regard to age, gender, symptoms, clinical signs and also disease-specific antibodies compared to patients with negative DFS70 status and present CTD.

Of the 21 DFS70-positive patients with CTD, 12 (57.1%) were tested for the presence of disease-specific autoantibodies. Specific autoantibodies could be detected in all of the tested patients with systemic lupus erythematosus, systemic sclerosis, Sjögren's syndrome and mixed connective tissue disease.

DFS70 autoantibodies had a specificity of 86.8%, a sensitivity of 26.9% and a positive predictive value of 68.2% at an ANA titer of $\geq 1:160$, with respect to the absence of a connective tissue disease.

Table 1. Sensitivity, specificity and positive predictive value of anti-DFS70 autoantibody in different ANA titers (borderline patients excluded)

a) ANA-Titer $\geq 1:80$ N=362	No present CTD	Present CTD
DFS70 positive	52	21
DFS70 negative	145	144
	Sensitivity: 26.4%	Specificity: 87.3%
Positive predictive value= 71.2%		
b) ANA-Titer $\geq 1:160$ N=326	No present CTD	Present CTD
DFS70 positive	45	21
DFS70 negative	122	138
	Sensitivity: 26.9%	Specificity: 86.8%
Positive predictive value= 68.2%		
c) ANA-Titer $\geq 1:640$ N=167	No present CTD	Present CTD
DFS70 positive	17	14
DFS70 negative	48	88
	Sensitivity: 26.2%	Specificity: 86.3%

Positive predictive value= 54.8%

Conclusion: Autoantibodies to DFS70 often occur in CTD patients and are therefore not a valid exclusion criteria for a CTD. We observed no CTD in 68.2% of patients who were tested positive. Thus, in difficult situations, the DFS70 test may be helpful and the additional exclusion of other autoantibodies may render CTD even less probable.

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OP0152

COMPARISON OF DIAGNOSTIC CRITERIA IN BEHÇET DISEASE AND SENSITIVITY IN DIAGNOSING SEVERE MANIFESTATIONS.

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Background: Behçet disease (BD) is characterized by painful recurrent oral aphthosis genital ulcers and skin lesions. Nevertheless, the major causes of morbidity result from ocular, vascular and neurological involvement. Diagnosis of BD is usually performed according to the International Study Group (ISG) (*Lancet* 1990; 335:1078-80). Recently, criteria proposed by the International Team for the Revision of the International Criteria for BD (ITR-ICBD) have demonstrated a higher sensitivity (*J Eur Acad Dermatology Venereol* 2014;28:338-47).

Table 1. Main clinical features according to different diagnostic criteria. Patients characteristics, data are in n (%)

	Expert rheumatologists (N=120)	ISG criteria (N=59)	ICBD criteria (N=96)
Age, mean years / (SD)	38 (13.8)	35.6 (13)	37 (13)
Gender, men/women, N (%)	62/58 (52.1/47.9)	29/30 (49.1/50.8)	48/48 (50/50)
Oral aphthosis, N (%)	113 (94.2)	59 (100)	94 (97.9)
Genital aphthosis, N (%)	71 (78.5)	46 (78)	71 (74)
Skin manifestations N (%)	76 (63.3)	52 (88.1)	64 (71.6)
Ocular lesions, N (%)	54 (45)	31 (52.5)	50 (52.1)
Joint manifestations, N (%)	78 (65)	38 (64.4)	62 (64.6)
Neurological manifestations, N (%)	23 (19.2)	9 (15.2)	20 (21.1)
Vascular manifestations, N (%)	14 (11.6)	7 (11.9)	14 (14.6)
Gastrointestinal features, N (%)	8 (6.6)	3 (5.1)	5 (5.3)

Objectives: To assess a) the concordance and differences between ISG and ICBD criteria b) sensitivity in diagnosing severe manifestations (ocular, vascular and neurological).

Methods: The study included 120 patients diagnosed with definitive or possible BD by expert rheumatologists. They were diagnosed at a well-defined population in Northern Spain between January 1980 and December 2019. The ISG and ICBD diagnostic criteria for BD were applied to all patients and compared among them.

Results: 120 patients (62 men/ 58 women) were studied. Mean age at diagnosis was 37.6 $\pm$ 13.8 years. 59 (49.2%) patients fulfilled ISG criteria and 96 (80%) ICBD criteria. Concordance between both criteria was moderate (Kappa 0.41). ICBD criteria diagnosed more patients with neurological ($\chi^2=49.1$, $p<0.01$), vascular ($\chi^2=56.7$, $p<0.01$) and ocular manifestations ($\chi^2=84.4$, $p<0.01$) (Figure).

Figure 1. Number of patients with vascular, neurological or ocular manifestations diagnosed with BD by different criteria. **Abbreviations:** ITRC-ICBD: International Team for the Revision of the International Criteria for BD; ISG: International Study Group for Behçet Disease.

Conclusion: ICB criteria are more likely to diagnose BD and classify more patients with severe manifestations of the disease.

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HPR Abstract Session (I)

OP0153-HPR

BRIDGING GAPS ACROSS LEVELS OF CARE IN REHABILITATION OF PATIENTS WITH RHEUMATIC AND MUSCULOSKELETAL DISEASES: RESULTS FROM A STEPPED WEDGE CLUSTER RANDOMISED CONTROLLED TRIAL

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Background: Previous research show that patients with rheumatic and musculoskeletal diseases (RMDs) benefit from rehabilitation, but the health effects are small and decline over time. Later reports reveal that the quality of rehabilitation services varies largely, with lack of coordination and continuity across levels of care. This may weaken the effect on patients' long-lasting health, ability to self-manage their conditions and achieve their goals. We therefore developed a new, evidence-based rehabilitation program to strengthen the quality and bridge the gaps in rehabilitation services for this patient group.

Objectives: To evaluate if a new rehabilitation program (the BRIDGE program) designed to improve the quality and continuity of rehabilitation across levels of care, was more effective than traditional rehabilitation in improving goal achievement, function, self-assessed health and health related quality of life (HR-QoL) in patients with RMDs.

Methods: In a stepped wedge cluster randomised controlled trial 8 rehabilitation centres organised in secondary health care and located across all health regions of Norway recruited a total of 374 patients with rheumatic and musculoskeletal diseases. These patients received either traditional rehabilitation (control) (n=206), or traditional rehabilitation extended with an individually adapted complex intervention consisting of structured goal setting, plans for self-management, motivational interviewing, self-monitored digital feedback, and tailored follow-up support after discharge according to patients' needs and available resources in primary healthcare (the BRIDGE program) (n=168). Patient-reported data were collected electronically on admission and discharge from rehabilitation, and after 2, 7, and 12 months. The primary outcome measure was patients' goal achievement measured by the Patient Specific Functional Scale (PSFS) (0-10, 10=best) seven months after rehabilitation stay. Secondary

outcome measures were function measured by the 30-seconds Sit-To-Stand Test (30secSTS), self-assessed health and HR-QoL measured by the Euro-QoL instruments EQ-5D-5L-VAS (0-100, 100=best) and EQ 5D-5L-index (-1 to 1, 1=best). The main comparative analysis was performed on the intention to treat population, using all available data, by linear mixed models adjusted for the baseline scores and for the potentially confounding effects of calendar time and data clustering. Sensitivity analyses were performed on data provided by the per protocol population according to predefined criteria, in addition to centerwise comparisons of the control and intervention groups.

Results: No significant treatment effects of the BRIDGE-program were demonstrated either for patients' goal achievement (mean difference 0.1 [95% CI: -0.5, 0.8], p=0.70) (Figure 1), function (mean difference 0.9 [95% CI: -0.4, 2.2], p=0.18), self-assessed health (mean difference -0.1 [95% CI: -4.1, 3.9], p=0.98), or HR-QoL (mean difference 0.0 [95% CI: -0.0, 0.0], p=0.99) seven months after rehabilitation. Sensitivity analyses confirmed the findings from the primary analysis. A significant proportion of missing data for the primary outcome measure (29% in the control and 41% in the intervention group), caused by errors in the digital data collection system, may impair the reliability of the results.

Conclusion: The BRIDGE program was not shown to be more effective than traditional rehabilitation in terms of improving goal achievement, function, self-assessed health and HR-QoL in patients with RMDs. There is still a need for more knowledge about factors that can improve the quality, continuity and long-term health effects of rehabilitation for this patient group.

Figure 1. Goal achievement measured with PSFS (0-10, 10=best) indicated by difficulty to perform goal at 4 time-points: discharge from rehabilitation (baseline for this particular outcome) and after 2, 7 and 12 months. Vertical lines indicate the estimated mean values (center) with 95% confidence interval. Horizontal lines show the fluctuating mean PSFS values from baseline to 12 months after discharge. Graph A shows the average of the first three goals set by the patients, measured over time, while the graphs B, C and D show the results separately for the first, second and third goal, respectively.

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OP0154-HPR

FEASIBILITY OF A WEB-BASED, PEER-SUPPORTED EXERCISE PROGRAM FOR PEOPLE WITH HIP OR KNEE OSTEOARTHRITIS

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Background: Long-term physical activity (PA) and exercise is recommended as a cornerstone in the treatment of people with osteoarthritis (OA) (1), yet adherence to exercise is challenging (2). The treatment needs for this large group of patients cannot be fully managed within the health-care system, thus developing innovative and effective follow-up strategies is urgently needed.