English Version of "Multimodale Therapie des Fibromyalgiesyndroms. Systematische Übersicht, Metaanalyse und Leitlinie".
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Multicomponent therapy of fibromyalgia syndrome

Systematic review, meta-analysis and guideline

For the planned revision of the guideline, the steering group of the workgroup posed the following questions:

1. Is multicomponent therapy in FMS effective short-term and long-term?
2. What study duration is needed for a multicomponent therapy to be effective?
3. Which patients should be offered a multicomponent therapy?
4. What are the crucial components in multicomponent therapy?

Materials and methods

Details on literature search and analysis as well as on the development process of the recommendations are listed in the article "Methodological fundamentals used in developing the guideline" in this issue.

Results

The following conclusions are valid for adult patients. For multicomponent therapy of chronic pain in several body parts of children and adolescents, see article "Definition, diagnosis and therapy of chronic widespread pain and so-called fibromyalgia syndrome in children and adolescents". Key recommendations are italicized.

Multicomponent therapy

Evidence-based recommendation
Multicomponent therapy should be applied. EL1a, strong recommendation, strong consensus

Duration of multicomponent therapy

Evidence-based recommendation
Duration of therapy should be at least 24 h. EL1a, strong recommendation, strong consensus

Comment to the two recommendations above. In the German Operation and Procedure Code ("Operationen- und Prozedurenschlüssel", OPS), multicomponent therapy is applicable in the context of a multicomponent complex treatment such as inpatient/outpatient multicomponent pain therapy (OPS items 8-91c and 8-918.x, respectively) or an inpatient psychosomatic–psychotherapeutic clinical treatment (OPS items 9-60.x to 9-64.x).

According to OPS item 8-918.x, a multicomponent pain therapy requires inter-

disciplinary diagnostics by at least 2 distinct disciplines (obligatory one psychiatric, psychosomatic or psychological discipline) and is defined by the simultaneous application of at least 3 of the following therapies under medical administration: psychotherapy, special psychotherapy, relaxation techniques, ergotherapy, medical training therapy, sensomotoric training, employment training, art or music therapy or other practicing therapies. Furthermore, multicomponent pain therapy involves monitoring of the treatment progress via a standardized therapeutic assessment through interdisciplinary team meetings [7]. In the literature, "multidisciplinary approaches" in FMS are defined as the combination of at least one activating procedure (endurance, strength or flexibility training) with at least one psychotherapeutic procedure (patient education and/or cognitive behavioral therapy) [4]. Accordingly, studies combining at least one activating with at least one psychotherapeutic procedure were classified as "multicomponent studies" and therefore included into the analysis. Literature search obtained 760 such studies. One study was excluded as the clinical endpoints did not meet the criteria for inclusion [21]. A second study was excluded because multicomponent therapy was combined with amitriptyline treatment [22]. The outcomes of one study were published twice [17, 18]. All studies that were included in the analysis met the criteria of a multidisciplinary therapy. Whether these studies meet the criteria of a multicomponent therapy (monitoring of the treatment progress via a standardized therapeutic assessment through interdisciplinary team meetings) could not be investigated based on the published study descriptions.

Seventeen studies with 18 study arms, 1,572 patients and an average study duration of 11 weeks (3–26 weeks) were analyzed [2, 3, 4, 6, 8, 9, 10, 12, 13, 14, 15, 16, 18, 19, 21, 23, 24]. In 8 studies, follow-ups after an average of 8 months (range 4–24 months) were conducted (Evidence Report Tab. 35).

The quality of evidence was moderate (high quality of methods, moderate external validity) (Evidence Report, Tab. 36).

Multicomponent therapy was highly effective. The standardized mean differences (SMDs) of multicomponent therapy vs. controls at the end of therapy were low for pain and fatigue and moderate for quality of life. The SMDs for multicomponent therapy vs. controls at follow-up were low for fatigue and quality of life (Evidence Report, Tab. 37 and Fig. 11). Subgroup analysis showed that significant effects on pain, fatigue and quality of life were obtained only at a study duration of 24 h or more (the maximum within the included studies was 64 h) [10]. The acceptance was moderate [dropout rate 107/712 (12%)] and was not significantly different compared to controls (Evidence Report Fig. 11). Side effects were not systematically determined (or reported, respectively). According to clinical experience, multicomponent therapy has no significant side effects.

As in the majority of the analyzed studies patients with comorbid depression or anxiety disorder were excluded, multicomponent therapy in more severe cases is not sufficiently represented. For treatment in cases of more severe disease progression, more intensive multicomponent programs are recommended (see recommendation in the article "Fibromyalgia syndrome: general principles of and coordination of clinical care and patient education").

Discussion

Quantitative data analysis confirmed the outcome of the first version of this guideline [1] where multicomponent therapy (MT) was strongly recommended.

The following recommendations should be considered to avoid methodological constraints in future studies of MT in FMS:

1. medication and concomitant treatment should be documented along the study progress and should be taken account of as covariates,
2. comorbidity of mental conditions, psychosocial stress and coping with stress should be determined at the beginning, the end, and at follow-up of therapy and should also be included as covariates,
3. predefined dichotomous parameters of the outcome (return to employment, number of patients with defined reduction of pain etc.) allow for the determination of prognostic parameters to MT,
4. identification of predictors of positive as well as negative outcomes of therapy,
5. randomized comparative clinical trials to identify the crucial components in MT,
6. randomized comparative clinical trials on the efficiency of MT dependent on therapy intensity including the documentation of long-term effects, and
7. randomized comparative clinical trials to identify the needed duration of therapy in a multicomponent program dependent on the severity of disease.

Conclusion for clinical practice

The review of more recent literature confirmed the strong recommendation of multicomponent therapy as given in the first version of this guideline. In the analyzed studies, multicomponent therapy was defined as a combination of one somatically activating therapy with one psychological procedure and was implemented in an outpatient setting. The studies included in the analysis did not meet the high quality standards of an inpatient/outpatient multicomponent therapy as specified in the German OPS. There are no studies at hand which could validate the recommendation of a scaling of the intensity of treatment based on case severity. Therefore, the recommendation of the application of more intensive multicomponent programs in cases of more severe disease progressions relies on clinical consensus.

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Conflict of interest. See Tab. 5 in "Methodological

fundamentals used in developing the guideline" by W. Häuser, K. Bernardy, H. Wang, and I. Kopp in this issue.

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Abstract · Zusammenfassung

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Multicomponent therapy of fibromyalgia syndrome. Systematic review, meta-analysis and guideline

Abstract

Background. The scheduled update to the German S3 guidelines on fibromyalgia syndrome (FMS) by the Association of the Scientific Medical Societies ("Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften", AWMF; registration number 041/004) was planned starting in March 2011.
Materials and methods. The development of the guidelines was coordinated by the German Interdisciplinary Association for Pain Therapy ("Deutsche Interdisziplinären Vereinigung für Schmerztherapie", DIVS), 9 scientific medical societies and 2 patient self-help organizations. Eight working groups with a total of 50 members were evenly balanced in terms of gender, medical field, potential conflicts of interest and hierarchical position in the medical and scientific fields.Literature searches were performed using the Medline, PsycInfo, Scopus and Cochrane Library databases (until December 2010). The grading of the strength of the evidence followed the scheme of the Oxford Centre for Evidence-Based Medicine. The formulation and grading of recommendations was accomplished using a multi-step, formal consensus process. The guidelines were reviewed by the boards of the participating scientific medical societies.
Results and conclusion. The use of multicomponent therapy (the combination of aerobic exercise with at least one psychological therapy) for a minimum of 24 h is strongly recommended for patients with severe FMS.The English full-text version of this article is available at SpringerLink (under "Supplemental").

Keywords

Fibromyalgia syndrome · Review, systematic · Meta-analysis · Guideline · Multimodal therapy

Multimodale Therapie des Fibromyalgiesyndroms. Systematische Übersicht, Metaanalyse und Leitlinie

Zusammenfassung

Hintergrund. Die planmäßige Aktualisierung der S3-Leitlinie zum Fibromyalgiesyndrom (FMS; AWMF-Registernummer 041/004) wurde ab März 2011 vorgenommen.
Material und Methoden. Die Leitlinie wurde unter Koordination der Deutschen Interdisziplinären Vereinigung für Schmerztherapie DIVS von 9 wissenschaftlichen Fachgesellschaften und 2 Patientenselbsthilfeorganisationen entwickelt. Acht Arbeitsgruppen mit insgesamt 50 Mitgliedern wurden ausgewogen in Bezug auf Geschlecht, medizinischen Versorgungsbereich, potentielle Interessenkonflikte und hierarchische Position im medizinischen bzw. wissenschaftlichen System besetzt.Die Literaturrecherche erfolgte über die Datenbanken Medline, PsycInfo, Scopus und Cochrane Library (bis Dezember 2010). Die Graduierung der Evidenzstärke erfolgte nach dem Schema des Oxford Center for Evidence Based Medicine. Die Formulierung und Graduierung der Empfehlungen erfolgte in einem mehrstufigen, formalisierten Konsensusverfahren. Die Leitlinie wurde von den Vorständen der beteiligten Fachgesellschaften begutachtet.
Ergebnisse und Schlussfolgerung. Der Einsatz von multimodaler Therapie (Kombination von aerobem Training mit mindestens einem psychologischen Verfahren) mit mindestens 24 h Therapiedauer wird für Patienten mit schwereren Verläufen des FMS stark empfohlen.

Schlüsselwörter

Fibromyalgiesyndrom · Systematische Übersicht · Metaanalyse · Leitlinie · Multimodale Therapie

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