

Methotrexate information booklet study 2008

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ABSTRACT

Introduction. *In order to assess the value of using the methotrexate information booklet, we conducted a single blind prospective controlled trial of the patients attending two rheumatology services.*

Methods. *The active-arm (n=40) used the MTX information booklet for the patients' education and the control-arm (n=38) did not. Patients' interviews were conducted over a 6-month period using an MTX-questionnaire.*

Results. *The entire active-arm patients (100%) were taking folic-acid and 32 (80%) knew the reason why they were taking folic-acid vs. [30 (79%) and 10 (26%) in the control-arm]. In the active-arm 35 (88%) knew the reason for their monthly blood tests vs. 18 (47%) in the control-arm. The entire active-arm was aware of the need for contraception use and MTX-side effects vs. 23 (60%) and 15 (40%) in the control-arm respectively.*

Conclusions. *The use of the MTX information booklet in our cohort improved their understanding of the treatment.*

Introduction

In developed countries only 50% of patients suffering from chronic diseases adhere to treatment recommendations (1). The early use of methotrexate (MTX) is a key recommendation in the treatment of inflammatory arthritis (2-3). Methotrexate patient information booklets are produced in many countries to improve patients' understanding/adherence to MTX (4-5). However, none of the studies explored the potential for using MTX information booklet in rheumatology patients at the time of initiating MTX. We conducted a single blind prospective controlled trial of the patients attending two different rheumatology services of a university teaching hospital to determine if the use of MTX information booklet had resulted in better understanding of our patients and compared these results with those of the control group.

Methods

The active-arm (n=40) used the MTX information booklet (4) for the patients' education and the control-arm

(n=38) did not. This booklet was explained in detail to the active-arm both by the rheumatology-nurse and doctor. The control-arm was educated verbally about MTX. Patients' interviews were conducted over a 6-month period using a standard MTX-questionnaire both at the time of MTX-induction and 6-months later. Each questionnaire consisted of the following: medical record number, age, gender, rheumatological diagnoses/duration of illness, dose/date of MTX-commencement, dose/reason for taking folic-acid, frequency and reason for monitoring monthly blood tests, awareness of contraception use and lastly if patients could list MTX side effects. Findings between the two arms were compared.

Statistics

Nominal variables (categorical-variables) were compared using the non-parametric chi-square and binomial tests where appropriate by using the program SPSS 12.0.1 (17). The minimum expected cell frequency was always more than 5.0. For continuous variables (age, body mass, etc.) mean \pm SE is given.

Results

See Table I for the details. The overall demographics in the two arms are comparable. Mean age = 55 ± 14.6 years. Mean duration of disease diagnosis was 1.8 years (± 0.6) in the two arms. The entire active-arm was taking folic-acid and 32 (80%) knew the reason for taking folic-acid. In the control-arm these figures were 30 (79%) and 10 (26%) respectively. In the active-arm 35 (88%) of the patients knew the reason for monthly-monitoring vs. 18 (47%) in the control-arm. The entire active-arm was aware of the contraception use and side effect profile of MTX (as outlined in MTX booklet) vs. 23 (60%) and 15 (40%) of the control-arm respectively. Thirty-five (88%) of the active-arm patients were able to list the side effects of MTX vs. 15 (40%) in the control-arm.

Discussion

Our study showed significant differences in the two arms. When compared

Competing interests: none declared.

and analyzed after 6 months the active-arm expressed favorable attitudes about MTX understanding, in some cases over 90%, in the following areas: reasons for taking folic acid, monthly-monitoring, use of contraception and side effects profile. In rheumatic patients the provision of written information on the DMARDs will have strong bearing on the compliance. Poor compliance in rheumatic patients have been linked to the following factors: lower education level and side effects of DMARDs, ethnicity barriers, disease activity levels and personal/demographic factors (7-10).

Conclusions

This is the first single blind controlled trial that evaluated the role of MTX information booklet. In our opinion the rheumatic patients should be educated about DMARDs by using an information-booklet. Further studies are needed to clarify if this has any bearing on patients' compliance with DMARDs.

References

1. WORLD HEALTH ORGANIZATION: Adherence to long-term therapies: evidence for action. Geneva: World Health Organization, 2003.
2. COMBE B, LANDEWE R, LUKAS C *et al.*: EULAR recommendations for the management of early arthritis: report of a task force of the European Standing Committee for International Clinical Studies Including Therapeutics (ESCISIT). *Ann Rheum Dis* 2007 Jan; 66: 34-45.
3. GRIGOR C, CAPELL H, STIRLING A *et al.*: Effect of a treatment strategy of tight control for rheumatoid arthritis (the TICORA study):

Table I. Baseline characteristics and results of the study patients.

		Active-arm (n=40) no. (%)	Control-arm (n=38) no. (%)	χ^2 ; <i>p</i>
Age (years)		54 ± 15.8	55 ± 14.6	NS
Sex (% F)		30 (75 %)	25 (66%)	NS
Diagnosis		RA: 30 (75%) PsA: 10 (25%)	RA: 25 (66%) PsA: 13 (34%)	
Taking folic acid:		40 (100%)	30 (79%)	NS
Reason for taking folic acid?	Yes:	32 (80%)	10 (26%)	11.5; 0.001*
	No:	8 (20%)	28 (74%)	9.01; 0.03*
Monthly blood monitoring:	Yes:	40 (100%)	38 (100%)	NS
Do you know why?	Yes:	35 (88%)	18 (47%)	5.45; 0.02*
	No:	5 (12%)	20 (53%)	9.01; 0.03*
Awareness of contraception use:	Yes:	40 (100%)	23 (60%)	4.58; 0.03*
	No:	00	15 (40%)	0.01*
Do you know MTX side effects?	Yes:	40 (100%)	15 (40%)	11.3; 0.01*
List MTX side effects:		35 (88%)	15 (40%)	8.01; 0.005*

*Significant; NS: Not significant.

- a single-blind randomised controlled trial. *Lancet* 2004; 364: 263-9.
4. CHAKRAVARTY K, McDONALD H, PULLAR T *et al.*: on behalf of the British Society for Rheumatology, British Health Professionals in Rheumatology Standards, Guidelines and Audit Working Group in consultation with the British Association of Dermatologists (BAD). BSR/BHPR guideline for disease-modifying anti-rheumatic drug (DMARD) therapy in consultation with the British Association of Dermatologists. *Rheumatology* (Oxford). 2008; 47: 1591.
5. GUIDELINES FOR THE MANAGEMENT OF RHEUMATOID ARTHRITIS: American College of Rheumatology Ad Hoc Committee on Clinical Guidelines. *Arthritis Rheum* 1996; 39: 713-22.
6. DYTHAM C: *Choosing and Using Statistics: A Biologist's Guide*, 2nd ed., Blackwell Publishing Company, 2003.
7. GARCIA-GONZALEZ A, RICHARDSON M, GARCIA POPA-LISSEANU M *et al.*: Treatment adherence in patients with rheumatoid arthritis and systemic lupus erythematosus. *Clin Rheumatol* 2008; 27: 883-9 [Epub 2008 Jan 8].
8. MOSLEY-WILLIAMS A, LUMLEY MA, GILLIS M, LEISEN J, GUICE D: Barriers to treatment adherence among African American and white women with systemic lupus erythematosus. *Arthritis Rheum* 2002; 47: 630-8.
9. OWEN SG, FRIESEN WT, ROBERTS MS, FLUX W: Determinants of compliance in rheumatoid arthritic patients assessed in their home environment. *Br J Rheumatol* 1985; 24: 313-20.
10. BRUS H, VAN DE LAAR M, TAAL E, RASKER J, WIEGMAN O: Determinants of compliance with medication in patients with rheumatoid arthritis: the importance of self-efficacy expectations. *Patient Educ Couns* 1999; 36: 57-64.