

Quality of life assessment by SF-36 in elderly patients with familial Mediterranean fever: a comparative cross-sectional study from the Juvenile Inflammatory Rheumatism cohort

Sirs,

Thanks to colchicine, the life expectancy of patients with familial Mediterranean fever (FMF), the most frequent monogenic auto-inflammatory disease (1), is expected to be similar to that of the general population (2), but the quality of life (QoL) of the elderly FMF patients remains unknown. The objective of this study was to evaluate the QOL in FMF patients aged ≥65 years using the Short Form (36) Health Survey (SF-36), by comparison to younger FMF patients. We sent a questionnaire to all patients ≥65 years old (n=52) followed at the national French reference centre for FMF, which included the SF-36 survey (3, 4).

As control group, the questionnaire was also sent on a random basis to adult FMF patients ≤64 years old. All FMF patients were included in the Juvenile Inflammatory Rheumatism (JIR) cohort.

Missing data were replaced by the personal mean score of the other non-missing items of the scale (5). Categorical and continuous variables were compared using the Fisher exact test or the non-parametric Mann-Whitney test, respectively, with the GraphPad Prism 7 (GraphPad Software Inc., San Diego, CA) software. A *p*-value <0.05 was considered significant.

Among the 52 patients followed at the National Reference Centre ≥65 years old and still alive, 26 (50%) patients responded and were therefore included (12 females, median age [quartiles 1-3]: 71 [69-76] years). Thirty-two of the 400 (8%) items of the SF-36 questionnaire were missing. In addition, we also randomly surveyed 106 FMF patients aged <64, and 25 of them replied (8 men, median age: 43 [39-52] years, Table I). QoL was impaired in elderly patients in both physical and mental dimensions.

The comparisons of the physical, mental or total SF-36 scores between elderly and younger FMF patients yielded no significant differences (*p*=0.16, 0.97 and 0.29, respectively). However, the different health concepts were differently impacted with age. Indeed, elderly FMF patients had a significantly lower general health perception but a better social functioning than younger FMF patients (*p*=0.04, and 0.03, respectively), which could be related to the gap in social requirements between these two populations.

In addition, elderly patients tended to have poorer physical functioning, more physical limitations and greater emotional limitation (*p*=0.06, 0.09 and 0.09, respectively). Only a few previous studies explored the

Table I. Sociodemographic characteristics of the 25 elderly FMF patients and the 25 younger FMF patients included and their results to SF-36 survey.

	Patients ≥65 years (n=25)	Patients <65 years (n=25)	<i>p</i> -value
Male, n (%)	13 (52%)	8 (32%)	0.26
Median age [Q1-3] (years)	71 [69-76]	43 [39-52]	<0.001
Median age at FMF onset [Q1-3] (years)	10 [5-18]	6 [3-11.2] (n=24)	0.03
Median age at FMF diagnosis [Q1-3] (years)	31 [18-44]	24 [7-32]	0.14
Median dose of colchicine [Q1-3] (mg)	1 [1-1.5]	1.5 [1-2] (n=23)	0.01
AA amyloidosis, n (%)	3 (12%)	0 0.24	
Median number of crisis in the preceding year [Q1-3]	2 [0-4] (n=24)	3 [1-6] (n=23)	0.33
Homozygous or compound heterozygous, n (%)	21 (95%) (n=22)	14 (78%) (n=18)	0.16
Marital status			
Married, n (%)	22 (88%)	14 (56%)	0.03
Single, n (%)	0	7 (28%)	<0.01
Divorced, n (%)	3 (12%)	4 (16%)	1
Profession			
Lower occupations, n (%)	5 (20%)	1 (4%)	0.19
Intermediate occupations, n (%)	7 (28%)	11 (44%)	0.38
Higher occupations, n (%)	13 (52%)	11 (44%)	0.78
Unknown or unemployed, n (%)	0	2 (8%)	0.49
SF-36			
Physical Score	38.8 [30.9-81.5]	57.1 [48.4-61.7]	0.29
Physical functioning	41.3 [27.5-82.5]	60.6 [55.6-67.7]	0.16
Physical limitation	70 [50-85]	85 [70-95]	0.06
Physical Pain	25 [25-75]	50 [48.4-75]	0.09
General health perception	41.5 [12.5-100]	70.5 [12.5-70.5]	0.81
Mental Score	30 [25-70]	50 [45-60]	0.04
Social functioning	52.7 [33.6-80.1]	53.7 [45.2-61.9]	0.97
Emotional limitation	70.5 [45.5-100]	50 [25-70.5]	0.03
Emotional well-being	34.25 [0-100]	66.7 [47.5-100]	0.09
Vitality	60 [45-65]	60 [45-65]	0.62
	37.5 [25-62.5]	43.7 [31.2-50]	0.94

FMF: familial Mediterranean fever; Q: quartiles.

QoL in adult FMF patients compared to healthy subjects and they show that physical health domain is preferentially impacted in FMF patients compared to healthy controls (6-10).

Conversely, in our study, we noticed that both elderly and younger FMF patients also had a low mental SF-36 score.

The absence of a significant decrease in the total SF-36 score with age might be explained by two main assumptions:

- First, the absence of sequelae from FMF attacks. Only 3 patients had amyloidosis and they have a significantly lower mental and total SF-36 scores, compared to elderly patients without AA amyloidosis (*p*=0.02, and 0.01, respectively), but the physical score was similar (*p*=0.12).
- Second, it could also be secondary to a decrease in FMF activity with age that could compensate the impaired QoL due to other age-related problems.

In conclusion, this is the first study focusing on QoL of elderly FMF patients. QoL was impaired in both physical and mental dimensions, was similar to that of younger FMF patients. Elderly FMF patients had a significantly lower general health perception but a better social functioning than younger FMF patients. The results of this study need to be confirmed on a larger cohort including healthy seniors, and with a specific FMF activity score to highlight the

part of QoL decrease specifically induced by FMF.

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