

Vessels glowing in the dark

OP0181

MORTALITY IN POLYMYALGIA RHEUMATICA: A 35-YEAR PROSPECTIVE OBSERVATIONAL STUDY FROM SOUTHERN NORWAY.

S. Tengesdal¹, G. Myklebust². ¹Diakonhjemmet Hospital, Department of Rheumatology, Oslo, Norway; ²Hospital of Southern Norway, Research Department, Kristiansand, Norway

Background: Polymyalgia rheumatica (PMR) is a common inflammatory rheumatic disease in the elderly characterized by proximal muscular pain and stiffness. Although PMR is associated with systemic inflammation, prolonged glucocorticoid therapy and probably cardiovascular diseases, previous studies have not shown increased mortality. However, the number of studies is limited.

Objectives: The aim of this study was to determine whether PMR is associated with increased mortality in a large PMR cohort followed prospectively for a period of 35 years.

Methods: All patients diagnosed with PMR according to the criteria of Bird between 1987 and 1997 in the county of Aust-Agder, Southern Norway, were identified. Further details about the inclusion process have been published previously [1]. Patients in the prospective part of this study were followed until death or December 31, 2021. Standard mortality ratios (SMR) were calculated using population data (age- and gender-matched) from Statistics Norway as reference. Difference in survival between men and women was estimated using the Kaplan-Meier method. The study was approved by the regional ethics committee.

Results: A total of 296 patients were included. Among these were 200 (67.6%) females, and the mean age at diagnosis was 71.9 (SD 8.4). The vast majority, 277 patients (93.6%), were deceased at the censoring date of December 31, 2021. Mean observation time for all patients was 13.8 years (95% CI 12.8-14.7). The overall SMR was 1.05 (95% CI 0.93-1.18), for females 1.14 (95% CI 0.99-1.31) and for men 0.91 (95% CI 0.73-1.11). SMRs and mean survival times are presented in Table 1. The Kaplan-Meier survival curve showed no pronounced difference in survival between men and women (Figure 1).

Table 1. Standard Mortality Ratios.

	Person-n	years	Observed	Expected	SMR	95% CI	Mean survival time	95% CI
All patients	296	4079	277	263.18	1.05	0.93-1.18	85.7	84.9-86.5
- Male	96	1326	89	98.04	0.91	0.73-1.11	85.0	83.5-86.4
- Female	200	2752	188	165.14	1.14	0.99-1.31	86.0	85.0-87.0
Age at diagnosis								
<60	31	678	21	17.16	1.24	0.78-1.84	78.6	78.0-81.3
60-69	91	1626	84	83.14	1.01	0.81-1.25	83.8	82.2-85.4
70-79	123	1394	121	118.39	1.03	0.85-1.22	86.8	85.7-87.9
≥80	51	380	51	50.64	1.00	0.76-1.31	90.7	89.5-91.8
Men								
2 years		185	9	8.29	1.09	0.53-1.99		
5 years		436	17	21.03	0.81	0.49-1.27		
10 years		788	36	43.67	0.82	0.59-1.13		
25 years		1272	83	88.57	0.94	0.75-1.16		
Women								
2 years		392	11	12.76	0.86	0.45-1.50		
5 years		934	32	35.80	0.89	0.62-1.25		
10 years		1678	68	74.03	0.92	0.72-1.16		
25 years		2687	172	156.21	1.10	0.95-1.28		

"Years": refer to calculated survival time from date of diagnosis; "Observed": number of deaths in the PMR cohort; "Expected": number of expected deaths in age-matched, sex-matched, and year-matched background Norwegian Population.

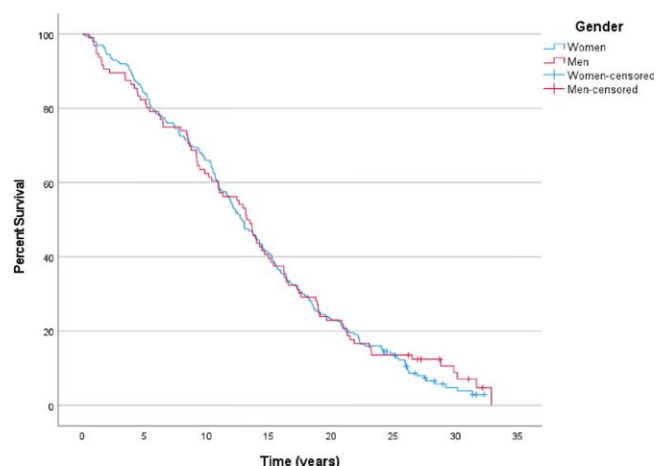


Figure 1. Kaplan-Meier survival curve.

Conclusion: To our knowledge, this is the first prospective study following a large PMR cohort from diagnosis to death. In women, overall mortality (SMR) was increased compared to the general Norwegian population. This tendency to increased mortality in women was observed during the last decades of the study period. Furthermore, increased SMR was observed in patients aged <60 at time of diagnosis and in men the first 2 years after diagnosis, although with wide confidence intervals due to the limited number of deaths in these subsets.

REFERENCES:

[1] Gran JT et al. Survival in polymyalgia rheumatica and temporal arteritis: a study of 398 cases and matched population controls. *Rheumatology*. 2001; 40: 1238-42.

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OP0182

SECUKINUMAB IN GIANT CELL ARTERITIS: THE RANDOMISED, PARALLEL-GROUP, DOUBLE-BLIND, PLACEBO-CONTROLLED, MULTICENTRE PHASE 2 TITAIN TRIAL

N. Venhoff¹, W. A. Schmidt², R. Bergner³, J. Rech⁴, L. Unger⁵, H. P. Tony⁶, M. Mendelson⁷, C. Sieder⁸, M. Maricos⁸, J. Thiel^{1,9}. ¹Vasculitis Center Freiburg, Medical Center - University of Freiburg, Department of Rheumatology and Clinical Immunology, Freiburg, Germany; ²Immanuel Krankenhaus Berlin, Medical Center for Rheumatology Berlin-Buch, Berlin, Germany; ³Klinikum der Stadt Ludwigshafen, Medizinische Klinik A, Ludwigshafen, Germany; ⁴Friedrich-Alexander University (FAU) Erlangen-Nürnberg and Universitätsklinikum, Department of Internal Medicine 3 - Rheumatology and Immunology, Erlangen, Germany; ⁵Städtisches Klinikum Dresden, Medical Department 1, Dresden, Germany; ⁶Rheumatology and Clinical Immunology Oberduerrbachertstr, Department of Medicine 2, Wuerzburg, Germany; ⁷Novartis Pharmaceuticals Corporation, Rheumatology, New Jersey, United States of America; ⁸Novartis Pharma GmbH, Rheumatology, Nuremberg, Germany; ⁹Medical University of Graz, Division of Rheumatology and Immunology, Department of Internal Medicine, Graz, Austria

Background: Little is known about glucocorticoid-sparing agents in giant cell arteritis (GCA) except for IL-6 inhibition. Secukinumab (SEC) has shown significant improvements in the signs and symptoms of IL-17A driven medical conditions such as plaque psoriasis, psoriatic arthritis, and axial spondyloarthritis.^{1,2} It has a favourable long-term safety profile.^{1,2}

Objectives: TitAIN is the first randomised controlled trial investigating the potential efficacy, safety, and tolerability of SEC in GCA patients (pts).

Methods: This phase 2, randomised, double-blind, placebo (PBO) controlled, multicentre, proof-of-concept trial enrolled pts (aged ≥50 years) with new onset (diagnosed within 6 weeks (wks) of baseline) or relapsing (diagnosed >6 wks from baseline) GCA, naïve to biological therapy. Pts were randomised (1:1) to SEC 300 mg or PBO initially administered wkly (5 doses) and every 4 wks thereafter through Wk 48 (last dose), in combination with a 26-wk prednisolone taper regimen starting from baseline. Proportion of GCA pts in sustained remission until Wk 28 was the primary endpoint assessed by a Bayesian analysis of the posterior distribution with non-responder imputation. Other key endpoints included proportion of GCA pts in sustained remission until Wk 52 (based on study data with non-responder imputation) and time to first GCA flare after baseline.

Results: Out of 52 randomised pts (SEC, n=27; PBO, n=25), 71.2% (n=37) completed study treatment (SEC, 81.5%; PBO, 60.0%). Overall, 42 (80.8%) pts had new onset GCA and 10 (19.2%) pts had relapsing GCA at baseline. Proportion (posterior median with 95% credibility interval) of GCA pts in sustained remission until Wk 28 was higher with SEC, 70.1% (51.6%-84.9%), than with PBO, 20.3% (12.4%-30.0%); odds ratio (posterior median with 95% credibility interval), 9.31 (3.54-26.29) (Table 1). Until Wk 52, proportion (95% confidence interval) of GCA pts in sustained remission were 59.3% (38.8%-77.6%) in SEC group and 8.0% (1.0%-26.0%) in PBO group (Table 1). Median (95% confidence interval) time to first GCA flare after baseline was not reached for GCA pts treated with SEC and was 197.0 (101.0-280.0) days for PBO (Figure 1). Overall, treatment-emergent adverse events (AEs) occurred in 98.1% (SEC vs PBO, 100.0% vs 96.0%) and serious AEs in 32.7% (SEC vs PBO, 22.2% vs 44.0%) pts. Two pts in each SEC and PBO groups had AEs that led to study drug discontinuation and 1 pt in each group had AEs that led to death (not treatment-related). There were no new or unexpected safety signals identified with SEC treatment.

Table 1. Proportion of GCA patients with sustained remission (Full analysis set) until Week 28 and 52

Proportion of pts	Secukinumab (N=27)	Placebo (N=25)
Median percentage (95% credibility interval), Wk 28	70.1% (51.6%, 84.9%)	20.3% (12.4%, 30.0%)
Percentage (95% confidence interval), Wk 52	59.3% (38.8%, 77.6%)	8.0% (1.0%, 26.0%)

The full analysis set comprises all pts to whom study treatment has been assigned by randomisation and who received at least one dose of randomised study treatment (secukinumab or placebo). GCA, giant cell arteritis; N, number of pts in each treatment group in the full analysis set, pts, patients; Wk, Week