Diagnostic Delay and Associated Factors in Axial Spondyloarthritis across Europe. Results from the European Map of Axial Spondyloarthritis Survey

Laure Gossec[1], Marco Garrido-Cumbrera[2,3,4], Denis Poddubnyy[5,6], David Galvez-Ruiz[2,4], Christine Bundy[7], Carlos Jesus Delgado Dominguez[2,4], Raj Mahapatra[8], Pedro Plazuelo-Ramos[3], Souzi Makri[9] and Victoria Navarro-Compán[10], [1]Sorbonne Universités, Paris, France, [2]Health & Territory Research (HTR), Seville, Spain, [3]Spanish Coordinator of Spondyloarthritis Associations (CEADE), Madrid, Spain, [4]Universidad de Sevilla, Seville, Spain, [5]German Rheumatism Research Centre, Berlin, Germany, [6]Charité Universitätsmeidzin Berlin, Berlin, Germany, [7]Cardiff University, Cardiff, United Kingdom, [8]Ankylosing Spondylitis International Federation (ASIF), London, United Kingdom, [9]Cyprus League Against Rheumatism, Nicosia, Cyprus, [10]Immuno-Rheumatology research group, IdiPaz. La Paz University Hospital, Madrid, Spain

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SESSION INFORMATION

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Session Type: ACR Poster Session A

Session Time: 9:00AM-11:00AM

Background/Purpose: Axial Spondyloarthritis (axSpA) is a chronic inflammatory disease associated with a long diagnostic delay (DD); however, recent data suggests improvements[1]. The purpose was to assess the evolution of DD over time as reported by European axSpA patients and to identify factors associated with DD.

Methods: Between July 2017 and February 2018, 2846 axSpA patients participated in the European Map of Axial Spondyloarthritis (EMAS) survey across 13 countries. DD was patient-reported and defined as the time between symptom onset and formal diagnosis. Socio-demographics (gender, country, education, and relationship status), disease characteristics (report of extra-articular manifestations, HLA-B27 positive and axSpA subtype) and year of onset were assessed using bivariate Mann-Whitney and Kruskall-Wallis homogeneity tests and Pearson correlation coefficient. Moreover, a stepwise forward linear regression was conducted using variables that were significantly associated with DD.

Results: Of the 2846 patients, 61.4% were female. The mean age was 43.9 (SD 12.3) years. 85.5% self-reported having AS (n=2394/2800), 73.9% were HLA-B27 positive (n=1282/1735), and 50.7% had received biologic treatment (n=953/1880). The mean DD was 7.4 (SD 8.4) years with a median of 4.0 years. The bivariate analysis showed that DD was associated with the female gender, participant's country and year of onset but not associated with educational level, relationship status or disease characteristics (Table 1). Stepwise forward regression also showed that all the variables with bivariate

association had significant explanatory power over DD. There was a significant correlation between year of onset and DD; the more recent the disease onset, the shorter the DD (Pearson correlation -0.55; p<0.001) (Figure 1).

Conclusion: Despite recent progress in the field of axSpA, DD remains high in Europe (7.4 years). However, EMAS results show that DD is decreasing over time. The strongest factors associated with a longer DD were in order: female gender, country and earlier year of onset. Increased understanding of the factors associated with DD is needed to support earlier diagnosis.

1.   Sørensen et al. Diagnostic delay in patients with rheumatoid arthritis, psoriatic arthritis and ankylosing spondylitis: results from the Danish nationwide DANBIO registry. Annals of the Rheumatic Diseases 2015;74:e12.

Table 1. Diagnostic delay by patient characteristics and significance in bivariate and multivariable analyses

Variable	Mean (SD) DD if YES	Mean (SD) DD if NO	P-value Bivariate	Beta (95% CI) multivariable
Gender, Male	6.1 (7.4)	8.2 (8.9)	<.0001	2.53 (1.87-3.19)
Relation status, In relationship	7.5 (8.5)	7.2 (8.1)	.876	NA
Country	NA	NA	<.0001	.219 (0.12-0.32)
Year of onset	7.44		<.0001	.001 (0.000-0.002)
Subtype, AS vs other	7.3 (8.2)	7.8 (9.4) to	.760	NA

		8.3 (9.6)		
HLA B27+	8.3 (8.3)	9.0 (9.3)	.775	NA
Extra-articular manifestations, Uveitis	8.0 (8.3)	7.6 (8.4)	.098	NA
Extra-articular manifestations, Crohn's disease	7.7 (8.7)	7.5 (8.4)	.786	NA
Extra-articular manifestations: Psoriasis	7.2 (8.8)	6.1 (7.6)	.239	NA

Figure 1. Scatter diagram for year of disease onset and diagnostic delay (N: 2,652)

Diagnostic Delay (Years) vs Year of Onset
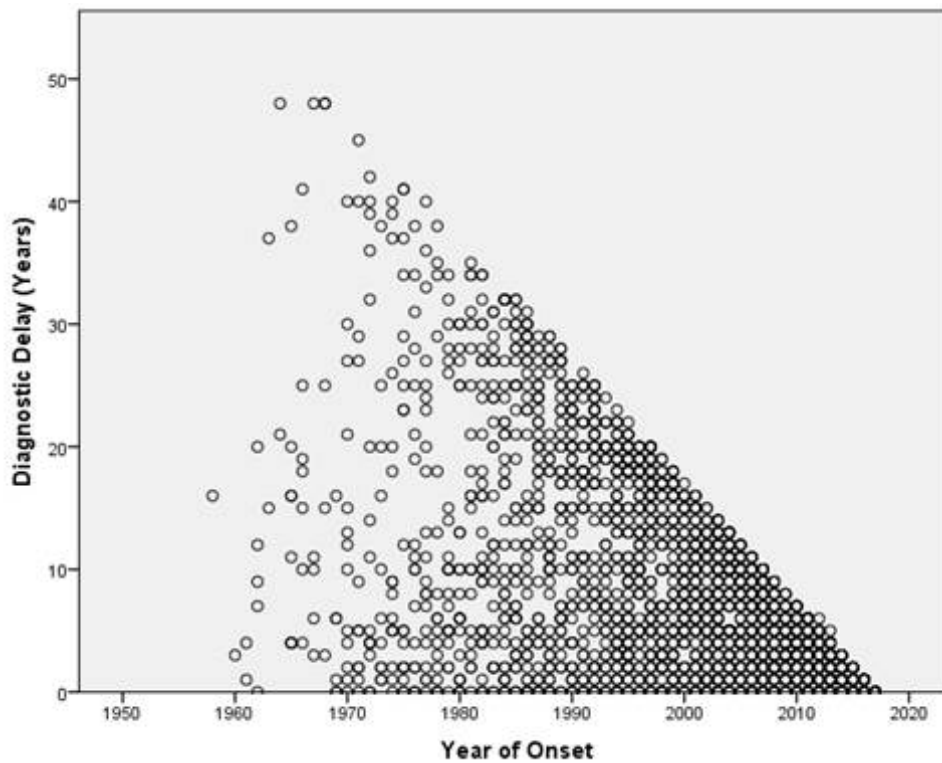
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