Gender Differences in Patient Journey to Diagnosis and Patient-reported Outcomes: Results from the European Map of Axial Spondyloarthritis (EMAS)

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Background:

Growing evidence of similarities in male-female prevalence of axial spondyloarthritis (axSpA) has stimulated the need to evaluate gender differences in patient experiences.

Objectives:

To evaluate gender differences in diagnostic journey, disease-characteristics and patient-reported outcomes (PROs) in axSpA patients.

Methods:

Data from 2846 unselected patients of the European Map of Axial Spondyloarthritis (EMAS) through an online survey (2017-2018) across 13 countries were analysed. Socio-demographic characteristics, diagnosis, disease-characteristics, and PROs [BASDAI (0-10), spinal stiffness (3-12), functional limitation (0-54) and psychological distress (0-12, GHQ-12)] were compared between genders. X^2 (for categorical variables) and student-t (for continuous variables) were employed.

Results:

1,746 (61.3%) females participated in the EMAS, with homogeneous gender distribution across most countries (Fig 1). Compared to males, females reported longer diagnostic delay (6.1±7.4 vs 8.2±8.9; p<0.001), more visits to physiotherapists (34.5% vs 49.5%; p<0.001) and osteopaths (13.3% vs 24.4%; p<0.001) before being diagnosed (Table 1), higher disease activity in all BASDAI items and greater functional limitation, psychological distress and self-reported anxiety and depression (Table 2).

Conclusion:

Important gender differences are observed in axSpA such as a longer patient journey to diagnosis, poorer PROs, and greater psychological burden in females. These results point to unmet needs in females with axSpA, requiring particular attention.

References:

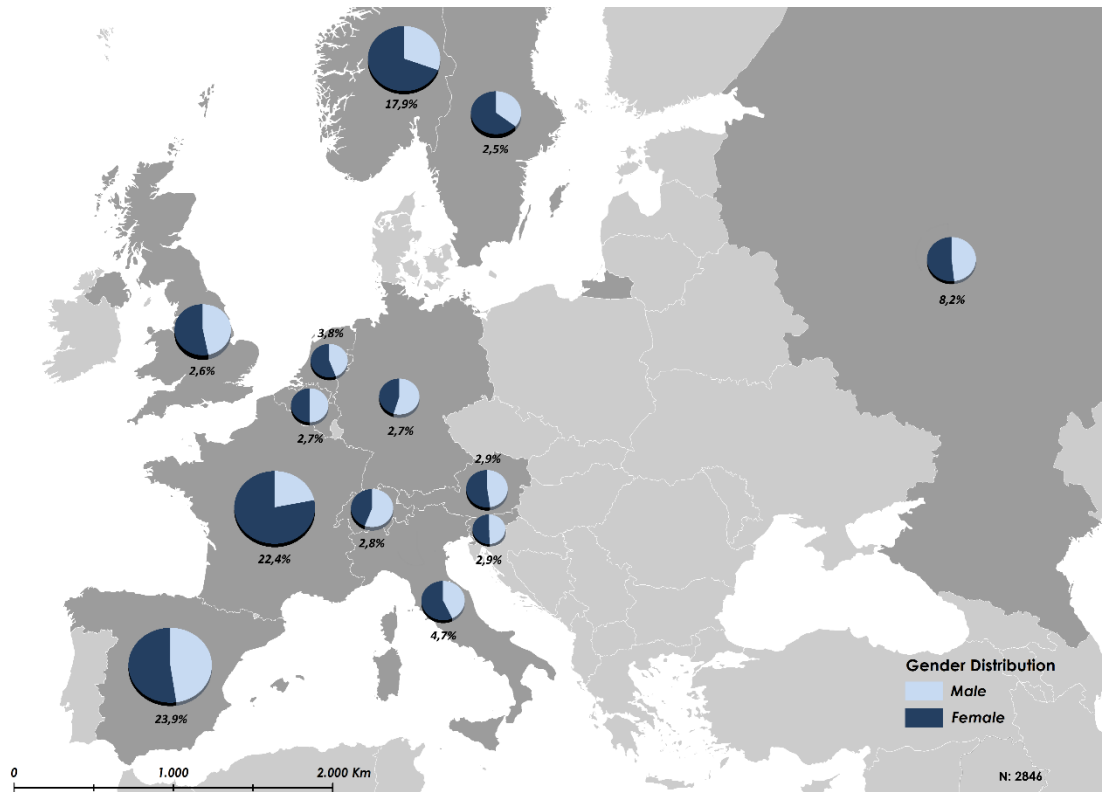**Figure 1.** Countries' sample distribution stratified by gender (N: 2846)

Table 1. Disease characteristics by gender (N: 2846, unless specified)

	Men (n: 1100) (mean ± SD or %)	Women (n: 1746) (mean ± SD or %)	p value
Age at onset of first symptoms, n: 2721	27.0 ± 11.8	26.4 ± 10.7	0.342
Age at diagnosis, n: 2722	32.6 ± 12.2	34.4 ± 10.9	**<0.001**
Diagnostic delay, n: 2652	6.1 ± 7.4	8.2 ± 8.9	**<0.001**
Disease Duration, n: 2716	18.9 ± 13.3	16.1 ± 11.7	**<0.001**
HCP seen before diagnosis			
- General practitioner	822 (74.7)	1434 (82.1)	**<0.001**
- Orthopaedic specialist	377 (34.3)	557 (31.9)	0.190
- Physiotherapist	380 (34.5)	865 (49.5)	**<0.001**
- Osteopath, n: 2166	103 (13.3)	339 (24.4)	**<0.001**
- Other, n: 2220	135 (14.0)	233 (18.5)	**0.005**
Family history of axSpA (yes), n: 2244	291 (33.5)	584 (42.5)	**<0.001**

HLA-B27 (positive), n: 1799	497 (80.2)	786 (66.7)	**<0.001**
Uveitis (yes), n: 2096	199 (25.2)	270 (20.7)	**0.023**
IBD (yes), n: 2096	113 (14.3)	181 (13.9)	0.688

Table 2. PROs by gender (N: 2846, unless specified)

	Men (n: 1100) (mean ± SD or %)	Women (n: 1746) (mean ± SD or %)	p value
BASDAI, (0-10) n: 2584	5.1 ± 2.0	5.7 ± 1.9	**<0.001**
- Fatigue, n: 2636	5.7 ± 2.4	6.6 ± 2.2	**<0.001**
- Neck, back or hip pain, n: 2636	5.6 ± 2.4	6.2 ± 2.2	**<0.001**
- Pain other than neck, back or hip, n: 2636	4.3 ± 2.7	4.9 ± 2.6	**<0.001**
- Discomfort to touch or pressure, n: 2636	4.5 ± 2.7	5.6 ± 2.6	**<0.001**
- Morning stiffness level, n: 2636	5.3 ± 2.6	5.9 ± 2.6	**<0.001**
- Morning stiffness duration, n: 2584	4.5 ± 2.8	4.7 ± 2.8	0.070
Stiffness, (3-12) n: 2707	7.7 ± 2.6	7.8 ± 2.4	0.107
Functional Limitation, (0-54) n: 2771	19.1 ± 16.7	21.2 ± 16.0	**<0.001**
GHQ-12 ≥3, n: 2640	564 (55.4)	1060 (65.4)	**<0.001**
Anxiety	243 (30.6)	566 (43.3)	**<0.001**
Depression	238 (30.1)	472 (36.1)	**<0.001**