

Characteristics of patients with difficult to treat psoriatic arthritis: Results from e.Pulse, the Nationwide Health Data

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Background

The recent emphasis on difficult-to-treat (D2T) psoriatic arthritis (PsA) lacks clarity in the definition of its characteristics.

Objectives

In this study, we aimed to determine the clinical and demographic characteristics of patients with D2T PsA registered in the national health registry dataset

Results

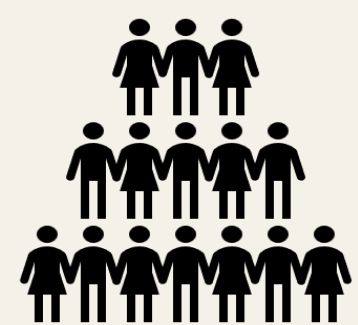
- From the cohort of 40.463 PsA patients 11.923 (29.4%) used at least one bDMARD.
- Overall, 2.605 (6.4% of all PsA patients, 21.8% of patients using bDMARDs) were defined as D2T PsA

Methods

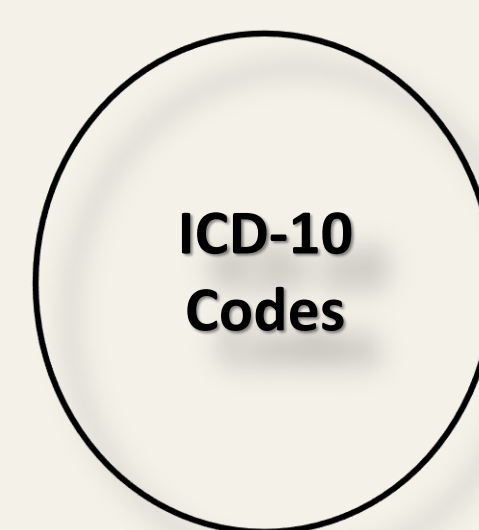
Datasystem and patients selection



- A comprehensive evaluation of a nationwide cohort was carried out using the Turkish National Health Data System, which relies on health data repositories established by the Ministry of Health since 2014
- These repositories, operated through computer applications, extend coverage across the entire country and extract information from the Turkish Ministry of Health National Electronic Database (E-Pulse), which has been operational nationwide since 2016



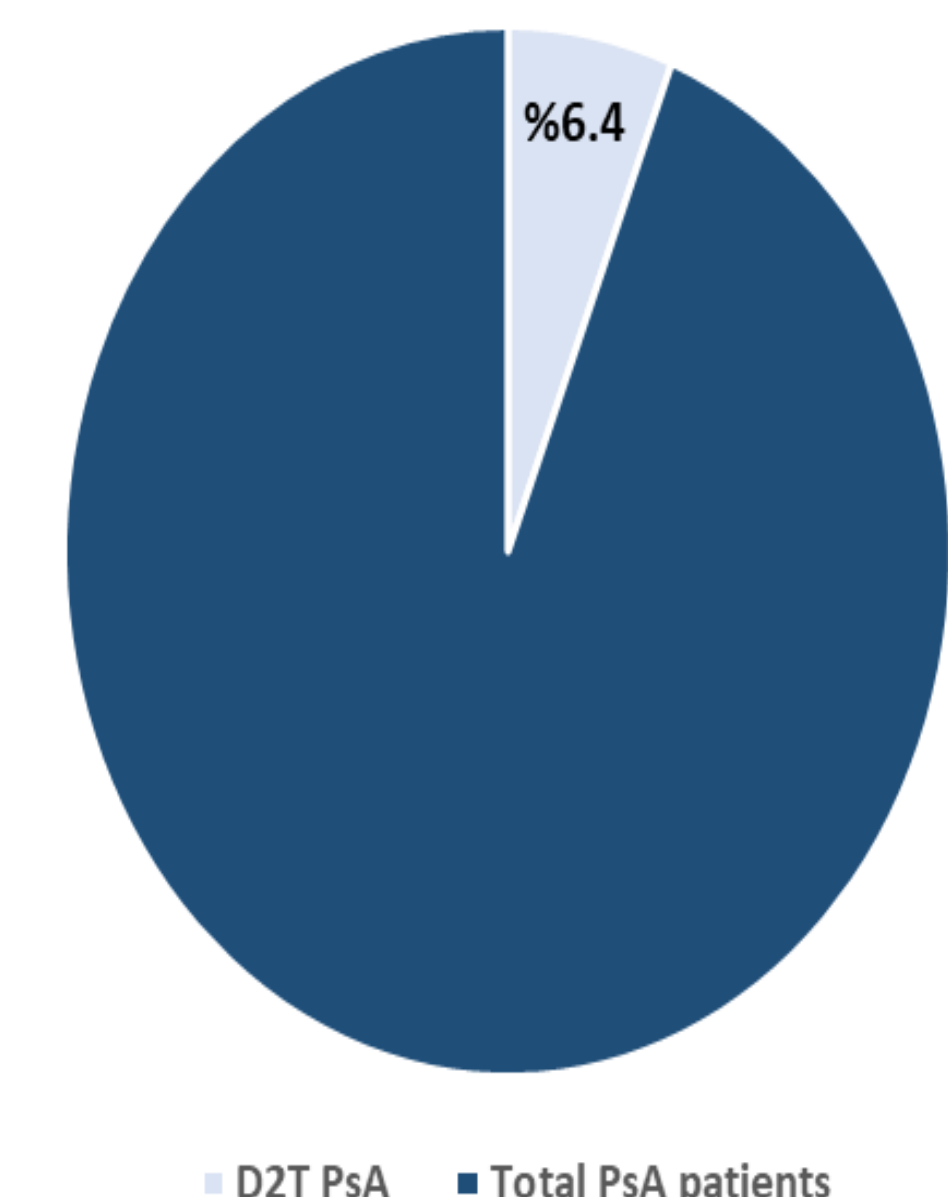
- The E-Pulse system contains clinical records for more than eighty million individuals in Turkey, including demographic details, laboratory results, medication history, and comorbidities.



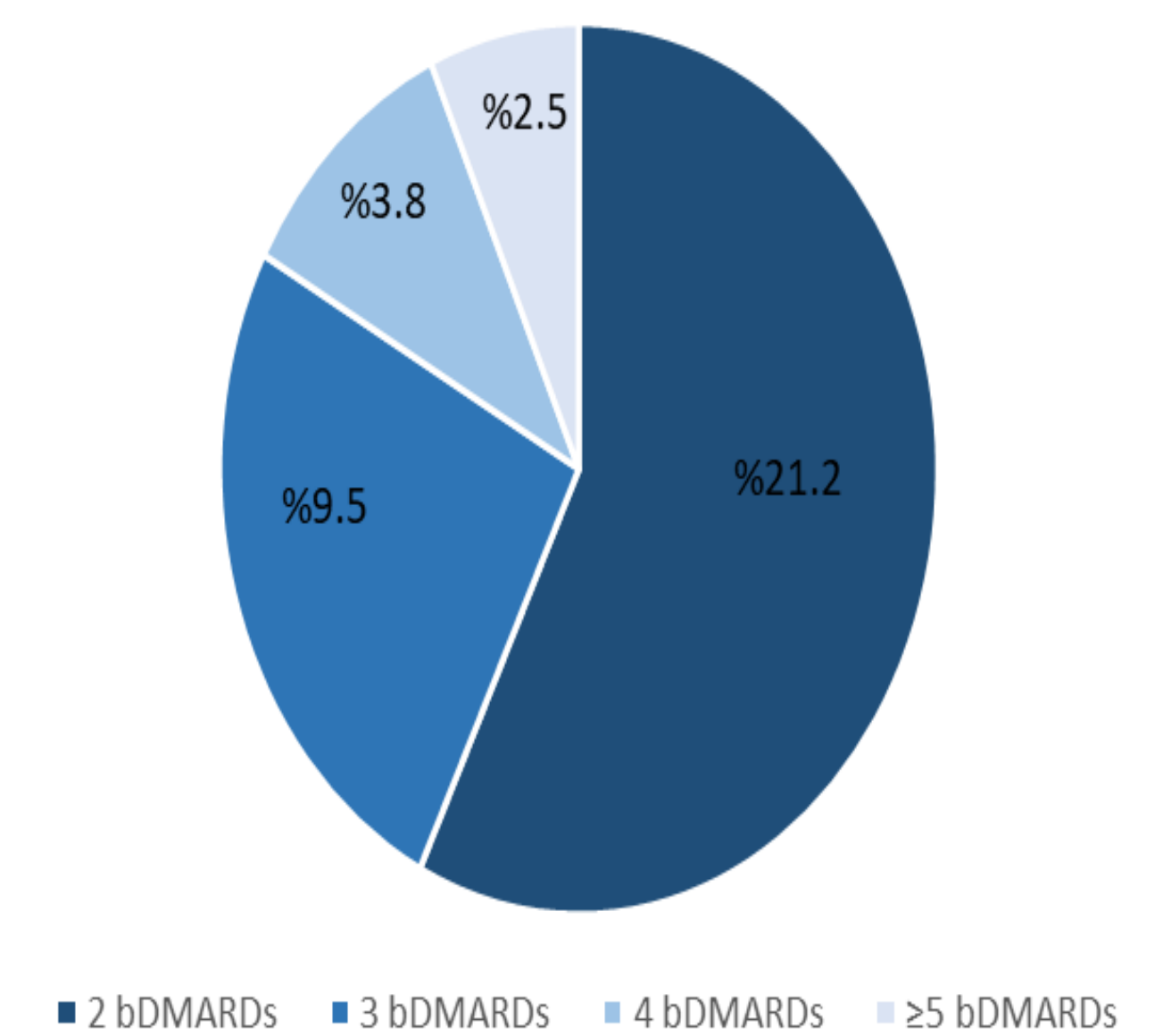
- In this analysis, cases of PsA were identified by;

ICD-10 codes

- **M07, M09, and their subgroups**
- **With cases defined as patients having the respective ICD-10 codes entered at least twice with a 30-day interval**
- For comorbidity analysis, comorbidity was considered to be present,
- **In patients with the comorbidity ICD-10 code entered at least 3 times without a time limit**



- The distribution of the groups according to the number of drugs used was as follows:



- There were no differences in connective tissue diseases, glucose intolerance, hyperlipidemia, pulmonary or renal diseases, malignancies, or thrombosis between patients who used one bDMARD and patients who used two or more bDMARDs.
- On the other hand, neuropsychiatric disorders were more frequent in patients who used two or more bDMARDs [depression 32.3% vs 26.1%, OR 95% CI 1.35 (1.23-1.48), fibromyalgia 12.0% vs 7.5%, OR 95% CI 1.64 (1.42-1.89)].
- Patients with D2T PsA were more likely to use csDMARD and glucocorticoids (Table 1).

Definition of D2T PsA

- The D2T PsA was defined as PsA patients prescribed ≥2 different mechanisms with biologic disease-modifying anti-rheumatic drugs (bDMARD)
- Demographics, comorbidities and treatment strategies were assessed in this group and comparisons were made between patients with only 1 bDMARD usage.

Table 1. Characteristics of D2T PsA patients

N (%)	bDMARD=1 n (%) N: 9.220	D2TPsA, n (%) N: 2.605	Odds Ratio
Age, years, mean (SD)	44.27 (12.7)	43.86 (11.7)	N.A
Female gender	5.667 (61.45)	1771 (65.54)	1.19 (1.09-1.31)
Glucocorticoid use	5.889 (63.9)	1863 (71.5)	1.48 (1.35-1.63)
Use of csDMARDs (ever)	7.824 (84.8)	2.409 (89.1)	1.47 (1.28-1.68)
-Methotrexate	6656 (72.1)	2072 (76.6)	1.27 (1.15-1.40)
-Leflunomide	2975 (32.2)	1132 (41.8)	1.51 (1.39-1.65)
-Sulfasalazine	2985 (32.3)	872 (32.2)	0.99 (0.91-1.09)

Conclusion

- The number of difficult PsA patients using bDMARDs with two different mechanisms is considerable and should not be ignored.
- In particular, whether female PsA patients are D2T because they have neuropsychiatric disorders, or whether they develop neuropsychiatric symptoms because they are D2T patients, is a question that needs to be investigated.

