

Backgrounder: Psoriatic Arthritis

For Media Use Only

What is psoriatic arthritis?

Psoriatic arthritis (PsA) is a painful, progressively debilitating inflammatory disease¹. PsA is closely associated with psoriasis; approximately 30% of people with psoriasis also have PsA².

PsA symptoms can begin at any age, including in childhood, but mainly affects adults (average 45 years of age)⁴. People with PsA are found to be genetically predisposed to the condition⁵.

What are the physical and psychological effects of PsA?

PsA is associated with significant disability, reduced life expectancy and represents a major economic burden for society⁶.

People with PsA have a significantly lower quality of life than those with many other arthritic conditions, as their condition is often made worse by the negative effects of psoriasis⁷.

Physical symptoms are often debilitating and prevent people with PsA from performing their normal routines⁷. Symptoms include joint pain and stiffness, skin and nail psoriasis, swollen toes and fingers, persistent painful swelling of the tendons, and irreversible joint damage⁷. Up to 40% of people can suffer from joint destruction and permanent physical deformity⁸.

PsA of the foot



PsA of the fingers



Furthermore, 63% of individuals are unable to stay physically active, and 47% find it reduces their ability to work³. The reductions in productivity and functionality are reported to be similar to those of patients with cancer, heart disease and diabetes⁷. Because people can no longer effectively undertake daily activities, many also experience feelings of depression, anxiety and social isolation⁶.

People with more severe forms of PsA have a lower life expectancy due to a greater risk of cardiovascular events, inflammation of the eye, high blood pressure, obesity and type-2 diabetes^{6,9}.

What is the immune system's role in PsA?

IL-17A, a protein that stimulates inflammatory disease, has been identified as playing a key role in a number of inflammatory arthritic diseases such as PsA and psoriasis¹⁰.

In PsA, increased IL-17A levels in the lining of the joints may trigger an immune response that leads to painful joint inflammation, swelling and tenderness¹⁰. The central role of IL-17A in the development of inflammatory arthritic diseases makes it a promising target for therapeutic intervention.

What are the unmet needs in PsA?

Approximately 45% of people with PsA are dissatisfied with current treatment options¹¹. Currently, treatments that block Tumor Necrosis Factor (TNF), another protein that stimulates inflammatory disease, are the standard of care for PsA¹². However, 30-40% of patients fail to respond to TNF inhibitors and even in those who do initially respond to these agents, effectiveness may decrease over time¹². Therefore, a significant unmet clinical need remains for novel therapies that offer better disease control and long-term prevention of joint structural damage to PsA patients.

References

1. Turkiewicz et al. Current concepts on pathogenesis-oriented therapeutic options. *Arthritis & Rheumatism*. Vol. 56, No. 4, April 2007, pp 1051-1066. DOI 10.1002/ant.22489. American College of Rheumatology
2. Gladman DD, Antoni C, Mease P, et al. Psoriatic arthritis: epidemiology, clinical features, course, and outcome. *Ann Rheum Dis*. 2005;64:ii14-ii17.
3. National Psoriasis Foundation (NPF) website. "2011 Survey Panel Snapshot for Psoriatic Arthritis." <http://www.psoriasis.org/document.doc?id=1782>. Accessed October 2014.
4. Medscape Reference website. "Epidemiology of Psoriatic Arthritis." <http://emedicine.medscape.com/article/331037-overview#aw2aab6b7>. Accessed October 2014
5. Rahman P & Elder JT. Genetic epidemiology of psoriasis and psoriatic arthritis. *Ann Rheum Dis*. 2005;64:ii37-ii39.
6. Lee S, Mendelsohn A, Sarnes E. The Burden of Psoriatic Arthritis: A Literature Review from a Global Health Systems Perspective. *Pharmacy and Therapeutics*. 2010;35(12): 680-689.
7. Mease PJ, Armstrong AW. Managing Patients with Psoriatic Disease: The Diagnosis and Pharmacologic Treatment of Psoriatic Arthritis in Patients with Psoriasis. *Drugs*. 2014; 74:423-441.
8. Medscape Reference website. "Medical Care in Psoriatic Arthritis." <http://emedicine.medscape.com/article/331037-overview#a30>. Accessed October 2014.
9. Husted JA, Thavaneswaran A, Chandran V, et al. Cardiovascular and other comorbidities in patients with psoriatic arthritis: A comparison with patients with psoriasis. *Arthritis Care Res (Hoboken)*. 2011;63(12):1729-35.
10. Van Baarsen LGM, Lebre MC, van der Coelen D, et al. IL-17 levels in synovium of patients with rheumatoid arthritis, psoriatic arthritis and osteoarthritis: Target validation in various forms of arthritis. *Ann Rheum Dis*. 2011;70:A79.
11. Armstrong A, Robertson A, Wu J, et al. Undertreatment, Treatment Trends, and Treatment Dissatisfaction Among Patients With Psoriasis and Psoriatic Arthritis in the United States: Findings From the National Psoriasis Foundation Surveys, 2003-2011. *JAMA Dermatol*. 2013; 149(10):1180-1185.
12. Gossec L, Smolen JS, Gaujoux-Viala C, et al. European League Against Rheumatism recommendations for the management of psoriatic arthritis with pharmacological therapies. *Ann Rheum Dis*. 2012;71:4-12.



Novartis Pharma AG
CH-4002 Basel, Switzerland
© 2014 Novartis Pharma AG
PSAPR001/1114

###