Backgrounder: Psoriatic Arthritis

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What is psoriatic arthritis?

Psoriatic arthritis (PsA) is a long-lasting inflammatory disease that belongs to a family of conditions commonly referred to as spondyloarthritis (SpA)[1]. PsA is closely associated with psoriasis; approximately 30% of people with psoriasis also have PsA[2].

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 condition[5].

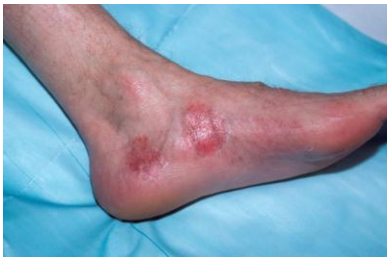
What are the physical and psychological effects of PsA?

PsA is associated with significant disability, reduced life expectancy and represents a major economic burden for society[6].

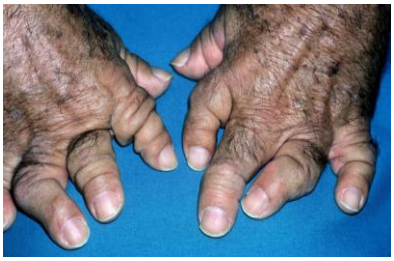
People with PsA have a significantly lower quality of life than those with many other arthritic conditions, as their condition is often made worse by the negative effects of psoriasis[7].

Physical symptoms are often debilitating and prevent people with PsA from performing their normal routines[7]. Symptoms include joint pain and stiffness, skin and nail psoriasis, swollen toes and fingers, persistent painful swelling of the tendons, and irreversible joint damage[7]. Up to 40% of people can suffer from joint destruction and permanent physical deformity[8].

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 work[3]. The reductions in productivity and functionality are reported to be similar to those of patients with cancer, heart disease and diabetes[7]. Because people can no longer effectively undertake daily activities, many also experience feelings of depression, anxiety and social isolation[6].

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 psoriasis[10].

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 tenderness[10]. 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 options[11]. Currently, treatments that block Tumor Necrosis Factor (TNF), another protein that stimulates inflammatory disease, are the standard of care for PsA[12]. 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 time[12]. 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.

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