Physical trauma associated with onset of psoriatic arthritis among psoriasis patients
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The results of a large population study presented today at the European League Against Rheumatism Annual Congress (EULAR 2015) showed an increased risk of developing Psoriatic Arthritis (PsA) among psoriasis patients exposed to physical trauma, particularly when the trauma involved bone and/or joints.

"This is the first sizable population-based cohort study to determine the risk of PsA following trauma in psoriasis patients," said Dr Thorvardur Love, senior author from Landspitali University Hospital, Iceland. "Our findings highlight the importance further study into the complex factors that lead to arthritis in psoriasis patients, as we may find ways to modify the risk once we fully understand it," he added.

PsA is a chronic inflammatory arthritis associated with psoriasis, which significantly impacts health-related quality of life, and may lead to severe, disabling joint damage. Psoriasis occurs in 1-3% of the population, with PsA occurring in up to 30% of those cases.

Trauma had previously been found to be associated with PsA in smaller studies, which in turn had led to the idea of a "deep Koebner" phenomenon playing a role in PsA, mirroring the superficial Koebner phenomenon seen in skin psoriasis. Koebner found that when an area of skin in people with psoriasis became traumatised following injury, a psoriatic lesion often appeared in the same location. A deep Koebner's phenomenon works on the same principle, but involves deeper tissues, including bones and joints.

Using data collected between 1995 and 2013, 15,416 psoriasis patients exposed to trauma and 55,230 unexposed controls were identified and followed-up for a total of 425,120 person-years during which 1,010 incident PsA cases were recorded.

The incidence rate of PsA among psoriasis patients not exposed to trauma was 22 per 10,000 person-years compared to 30 per 10,000 person-years in the exposed group.

Following adjustments for age, gender, date of entry into the patient database, duration of psoriasis, BMI, smoking, alcohol consumption and number of visits to the general practitioner, psoriasis patients exposed to trauma were shown to have an increased risk of PsA compared to controls (hazard ratio, 1.32).

A subset analysis showed that while bone and joint traumas were associated with increased PsA risk (hazard ratios, 1.46 vs 1.50 respectively), nerve trauma and skin trauma were not. Patients without psoriasis exposed to trauma did not have an increased risk of developing rheumatoid arthritis (hazard ratio, 1.04).

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