FOR MEDICAL MEDIA

Embargoed until 15 April 2024, 14:00 GMT

News release

First Interim Analysis of PROSPER Study Details Patient-Reported Symptom Burden of Mycosis Fungoides and Sézary Syndrome

Findings spotlighted in oral presentation at the 5th annual World Congress of Cutaneous Lymphomas meeting in Pasadena, CA

Tokyo, Japan, 15 April 2024 – On Friday, 12th April, 2024, Professor Julia Scarisbrick of University of Birmingham presented interim findings from the Kyowa Kirin, Inc. (Kyowa Kirin, TSA: 4151)-sponsored study, "*Real-World Observational Study of Mogamulizumab in Adult Patients with Mycosis Fungoides and Sézary Syndrome (PROSPER)*", a prospective observational study evaluating the real-world impact of mogamulizumab on disease symptoms and health-related quality of life (HRQoL) in patients with these subtypes of cutaneous T-cell lymphoma (CTCL).

CTCL is a rare form of non-Hodgkin lymphoma that most prominently affects the skin, presenting as patches, plaques, tumours, or reddening of the entire skin, and may be associated with severe itching. In a proportion of cases, the disease may spread to the lymph nodes, blood, and/or other organs.

In the current interim analysis, symptom scores (mean) were reported for 20 adult patients with relapsed or refractory disease (8 MF; 12 SS) over their first 16 weeks of mogamulizumab treatment. Prior to treatment initiation, patients reported their symptom burden using a 1 – 10 numeric scale. At baseline, skin itch scored highest (6.6) followed by skin redness (6.2), flaking skin (5.9) and skin pain (4.0). Additionally, over half of patients reported having sleep problems either "frequently" or "every night" while 47% reported difficulties regulating body temperature "frequently" or "always".

Improvement in all symptoms was reported within 4 weeks of treatment initiation and by week 16, symptom severity had decreased considerably with the greatest improvement seen in skin redness (-2.9) closely followed by skin itch (-2.7), flaking skin (-2.5) and skin pain (-2.2). Of note, the proportion of patients reporting sleep problems or difficulties regulating body temperature either "frequently" or "always" decreased to less than 20%.

"We know that CTCL patients not only suffer from the stress of a cancer diagnosis, but that these stresses are compounded by painful, red, scaly, and itchy lesions, tumours, and varying levels of discomfort," says study principal investigator, Prof. Julia Scarisbrick of the University of Birmingham. "The PROSPER study is helping us understand these burdens better and the impact mogamulizumab may have on patients' symptoms and quality of life."

About PROSPER

The objective of the PROSPER (ClinicalTrials.gov ID NCT05455931) study is to gain insight into the experiences of patients with MF/SS receiving mogamulizumab and of their caregivers in real-world clinical practice through the collection of patient reported outcomes (PRO) data, enriched with qualitative data on disease and treatment experience and burden. The study was designed with input from patients and caregivers to ensure patient-relevant outcomes were selected. The study is being conducted in up to 6 countries across North America, Europe, and the Middle East, at 19 sites known to treat and follow-up patients with MF/SS. Patients are followed for up to 50 weeks from study enrolment.

About Poteligeo® (mogamulizumab)

Mogamulizumab is a first-in-class humanised monoclonal antibody (mAb) directed against CC chemokine receptor 4 (CCR4), a protein consistently expressed in both MF and SS;[1,2,3] once mogamulizumab binds to CCR4, it increases attraction of immune cells from the immune system to destroy the cancerous cells.[4]

About Mycosis Fungoides (MF) and Sézary Syndrome (SS)

MF and SS are two subtypes of CTCL,[5] which is itself a rare form of non-Hodgkin lymphoma that presents and persists in the skin.[5,6] CTCL is treatable, but is not generally considered to be curable, and there has been a clear unmet need for novel treatment options. As well as the obvious impact of symptoms upon patients, there can be significant erosions to quality of life for those caring for an individual living with CTCL.[7]

MF and SS are characterised by localisation of cancerous white blood cells called T lymphocytes (T cells), to the skin.[8,9] These cancerous T cells consistently express a protein called CC-chemokine receptor 4 (CCR4), which enables them to move from the blood to the skin.[1,2,3] When these cancerous T cells move to the skin this results in the visible early skin symptoms of red patches or plaques [1,10,11,12,13] which can resemble psoriasis or eczema in the early stages of the disease.[8] Later, for some patients, skin involvement may evolve to include tumours or reddening of the majority of the skin surface (erythroderma).

MF – the most common CTCL subtype – accounts for approximately 60% of all CTCLs[10] and is typically indolent, characterised by skin symptoms including patches or plaques, skin redness and tumours.[14] SS is much rarer, accounting for around 5% of CTCLs,[15] and is more aggressive,[8] with high levels of blood involvement.[16] It can cause severe itching, erythroderma, intense scaling of the skin and frequent hair loss.[10]

MF and SS, while presenting in skin, can for some patients also affect the blood, lymph nodes (part of the body's immune system which is spread throughout the body) and internal organs.[17] All four areas of the body are used to assess disease stage[18,19] and clinically significant involvement of the blood, particularly in more advanced disease, has been linked with increased morbidity and an overall reduction in patient survival.[14, 18,20,]

CTCL can take, on average, between 2 and 7 years for individuals to receive a confirmed diagnosis.[21] Therefore, it is important for doctors to consider CTCL as an early differential diagnosis as the patient's prognosis can be affected if the disease progresses to later stages.[22] Whilst most individuals that present with early stage disease do not progress more severely,[23] patients with advanced disease have significantly poorer outcomes with only around half of patients (52%) surviving for just 5 years.[18] CTCL is an ultra-rare disease that affects 0.7 per 100,000 patients across the UK.[24] The annual incidence of MF in Europe is estimated to be between 1 in 110,000 to 1 in 350,000.[25] The annual incidence of SS is 1 in 10,000,000.[26] Together they represent approximately 65% of all cases of CTCL.[17]

About Kyowa Kirin

Kyowa Kirin strives to create and deliver novel medicines with life-changing value. As a Japan based Global Specialty Pharmaceutical Company with a more than 70-year heritage, the company applies cutting-edge science including an expertise in antibody research and engineering, to address the needs of patients and society across multiple therapeutic areas including Nephrology, Oncology, Immunology/Allergy and Neurology. Across our four regions – Japan, Asia Pacific, North America and EMEA/International – we focus on our purpose, to make people smile, and are united by our shared values of commitment to life, teamwork, innovation, and integrity.

Contacts for Kyowa Kirin Co., Ltd.:
Media
Name: Jonathon Sheppard
Email: Jonathon.sheppard@kyowakirin.com

References

[1] Ferenczi K, et al. Increased CCR4 expression in cutaneous T cell lymphoma. J Invest Dermatol. 2002;119:1405-10.
[2] Yoshie O, et al. Frequent Expression of CCR4 in Adult T-Cell Leukemia and Human T-cell Leukemia Virus Type 1-transformed T cells. Blood. 2002;99(5):1505-11.
[3] Ishida T, et al. Clinical Significance of CCR4 Expression in Adult T-cell Leukemia/Lymphoma: Its Close Association With Skin Involvement and Unfavorable Outcome. Clin Cancer Res. 2003;9:3625-34.
[4] Duvic M, et al. Mogamulizumab for the treatment of cutaneous T-cell lymphoma: recent advances and clinical potential. Ther Adv Hematol. 2016;7(3):171-174.
[5] National Organization for Rare Disorders: Cutaneous T-Cell Lymphomas. Available from: https://rarediseases.org/rare-diseases/cutaneous-t-cell-lymphomas/. Last Accessed: April 2024.
[6] Willemze R, et al. The 2018 update of the WHO-EORTC classification for primary cutaneous lymphomas. Blood. 2019;133(16):1703-1714.
[7] Williams et al (2020) – Health state utilities associated with caring for an individual with CTCL. Journal of Medical Economics. 2020; 23(10):1142-1150.
[8] Cutaneous Lymphoma Foundation, Lymphoma Action and Lymphoma Coalition Europe. Cutaneous lymphoma – a patient's guide. 2019. Available from: https://lymphomacoalition.org/wp-content/uploads/Cutaneous_lymphoma_-_patients_guide_-.pdf. Last accessed: April 2024.
[9] Mariani M, Lang R, Binda E, et al. Dominance of CCL22 over CCL17 in induction of chemokine receptor CCR4 desensitization and internalization on human Th2 cells. Eur J Immunol. 2004;34(1):231-240.
[10] Wilcox RA. Cutaneous T-cell lymphoma: 2016 update on diagnosis, risk-stratification, and management. Am J Hematol. 2016;91(1):151-65.
[11] Ni X, Jorgensen JL, Goswami M, et al. Reduction of regulatory T cells by Mogamulizumab, a defucosylated anti-CC chemokine receptor 4 antibody, in patients with aggressive/refractory mycosis fungoides and Sézary syndrome. Clin Cancer Res. 2014; 21(2):274-85.
[12] Kakinuma T, Sugaya M, Nakamura K, et al. Hymus and activation-regulated chemokine (TARC/CCL17) in mycosis fungoides: serum TARC levels reflect the disease activity of mycosis fungoides. J Am Acad Dermatol. 2003;48(1):23-30.
[13] Girardi M, Heald PW, Wilson LD. The Pathogenesis of Mycosis Fungoides. NEJM. 2004;350(19):1978-88.
[14] Scarisbrick, J, et al. The PROCLIPI international registry of early-stage mycosis fungoides identifies substantial diagnostic delay in most patients. Br J Dermatol. 2019;181(20):350-357.
[15] Trautinger F, et al. European Organisation for Research and Treatment of Cancer consensus recommendations for the treatment of mycosisfungoides/Sézary syndrome - Update 2017. European Journal of Cancer. 2017;77:57-74.
[16] Scarisbrick JJ, Whittaker, S, Evans, AV, et al. Prognostic significance of tumor burden in the blood of patients with erythrodermic primary cutaneous T-cell lymphoma. Blood. 2001;97(3):624-30.
[17] Olsen E, Vonderheid E, Pimpinelli N, et al. Revisions to the staging and classification of mycosis fungoides and Sezary syndrome: a proposal of the International Society for Cutaneous Lymphomas (ISCL) and the cutaneous lymphoma task force of the European Organization of Research and Treatment of Cancer (EORTC). Blood. 2007;110(6):1713-22.
[18] Scarisbrick JJ, Prince M, Vermeer MH, et al. Cutaneous Lymphoma International Consortium Study of Outcome in Advanced Stages of Mycosis Fungoides and Sézary Syndrome: Effect of Specific Prognostic Markers on Survival and Development of a Prognostic Model. J Clin Oncol. 2015;33(32):3766-3773.
[19] Willemze R, Hodak E, Zinzani PL et al. Primary cutaneous lymphomas: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. Ann Oncol. 2018;29(4):1-29.
[20] Kim EJ, Hess S, Richardson SK, et al. Immunopathogenesis and therapy of cutaneous T cell lymphoma. J Clin Invest. 2005;115(4):798-812.
[21] CL Foundation: A Patient's Guide. Available from: https://www.clfoundation.org/sites/default/files/2018-04/a_patients_guide.pdf. Last Accessed: April 2024.
[22] Agar N, et al. Survival Outcomes and Prognostic Factors in Mycosis Fungoides/Sezary Syndrome: Validation of the Revised International Society for Cutaneous Lymphomas/European Organisation for Research and Treatment of Cancer Staging Proposal. J Clin Ocol. 2010;28(31):4730-4739.
[23] Krejsgaard T, Lindahl LM, Mongan NP, et al. Malignant inflammation in cutaneous T-cell lymphoma—a hostile takeover. Semin Immunopathol. 2017;39(3):269–282.

[24] Gilson, D, et al. British Association of Dermatologists and UK Cutaneous Lymphoma Group Guidelines for the management of primary cutaneous lymphoma. British Journal of Dermatology. 2019. 180. pp.496-526

[25] Orphanet: Mycosis Fungoides. Available from: https://www.orpha.net/consor/cgi-bin/OC_Exp.php?Lng=GB&Expert=2584. Last Accessed: April 2024.

[26] Orphanet: Sézary syndrome. Available from: https://www.orpha.net/consor/cgi-bin/OC_Exp.php?Expert=3162. Last Accessed: April 2024.