

Tirabrutinib Monotherapy in Symptomatic Waldenström's Macroglobulinemia and Bing-Neel Syndrome

Naohiro Sekiguchi^{1, 2*}

¹*Hematology Division, National Hospital Organization Disaster Medical Center, Tokyo, Japan,*

²*Clinical Research Division, National Hospital Organization Disaster Medical Center, Tokyo, Japan,*

Tirabrutinib, second generation Bruton's tyrosine kinase inhibitor (BTKi) was originally developed in Japan, and approved for untreated and relapsed/refractory Waldenström's macroglobulinemia (WM) in August 2020 in Japan. Notably, tirabrutinib was first approved drug for WM in the world, as a 2nd generation BTKi. In the phase II study of tirabrutinib monotherapy for WM, the major response rate was 25 of 27 patients (93%). With a median follow-up of 24.8 months, the progression-free and overall survival rates were 92.6% and 100%, respectively. Tirabrutinib had durable efficacy with an acceptable safety profile, although treatment-related skin adverse events were commonly observed (52%).

Bing-Neel syndrome (BNS) is one of the rare and sometimes lethal neurologic complications in WM. Currently, ibrutinib is considered as promising agent for the treatment of BNS, although ibrutinib has a major concern of adverse events including atrial fibrillation. On the other hand, tirabrutinib is also approved for refractory central nervous system (CNS) lymphoma in March 2020 due to a good penetration into the CNS, and several case reports supported tirabrutinib monotherapy might have potential as an effective treatment for BNS with fewer toxicities. Thus, we are now conducting the multicenter retrospective study of tirabrutinib for BNS.



Naohiro Sekiguchi

Chief, Hematology Division, National Hospital Organization Disaster Medical Center

3256 Midori-cho, Tachikawa, Tokyo 190-0014, Japan

TEL.: +81-42-526-5511, FAX: +81-42-526-5535

E-mail: Sekiguchi.naohiro.cz@mail.hosp.go.jp, nao26nao26@gmail.com

EDUCATION/DEGREES:

1997: MD, The Jikei University School of Medicine

2006: PhD: The Jikei University School of Medicine

POST GRADUATE STUDY:

1997-99: Junior resident in National Center for Global Health and Medicine

1999-2002: Senior resident in The Jikei University School of Medicine

2002-2004: Chief senior resident in National Cancer Center Hospital

2005-2006: Post Dr. fellow in National Cancer Center Hospital

2013.Oct-Dec: Visiting fellow in Seoul National University Hospital and Seoul National University

BUSINESS ACTIVITIES:

2004-2005: The Jikei University School of Medicine

2007: The Jikei University School of Medicine

2008-2010: Coco-town clinic (Director)

2010-present: National Hospital Organization Disaster Medical Center

SOCIETY MEMBERSHIPS:

The Japanese Society of Internal Medicine

Japanese Society of Hematology

Japanese Society of Clinical Oncology

Japanese Cancer Association

Japanese Society of Myeloma

WM related Activities:

-JSH-KSH Fellowship Exchange Program Award (2013)

-Symposium in KMMWP (2013) ("Waldenström Macroglobulinemia" -Japanese Perception-)

-Symposium in JSH (2018) ("Waldenström Macroglobulinemia" -Japanese Perception-)

-Educational Session in JSH (2021) (Therapeutic algorithm of Waldenström's macroglobulinemia
/lymphoplasmacytic lymphoma in Japan)

-JSH Practical Guidelines for Hematological Malignancies (WM, Marginal zone lymphoma) (2018-)

-Japanese Society of Myeloma Guidelines (WM, 2024)