



## The 65th ASH Annual Meeting Abstracts

## ONLINE PUBLICATION ONLY

## 652.Multiple Myeloma: Clinical and Epidemiological

**Treatment Patterns in Patients with Mantle Cell Lymphoma: Updated Report of the Asia-Pacific Multinational Retrospective Registry Study**

Hyungwoo Cho, MD<sup>1</sup>, Dok Hyun Yoon, MD PhD<sup>1</sup>, Jason Yongsheng Chan, PhD<sup>2</sup>, Dajung Kim, MD PhD<sup>3</sup>, Haiwen Huang<sup>4</sup>, Qingqing Cai, PhD<sup>5</sup>, Yu Fang<sup>6</sup>, Tongyu Lin<sup>7</sup>, Koji Kato, MD, PhD<sup>8</sup>, Udomsak Bunworasate, MD<sup>9</sup>, Sen Mui Tan<sup>10</sup>, Ka-Won Kang<sup>11</sup>, Jae-Yong Kwak, MD PhD<sup>12</sup>, Tsai-Yun Chen, MD<sup>13</sup>, Jeong-Ok Lee, MD<sup>14</sup>, Seong Hyun Jeong, MD<sup>15</sup>, Young Rok Do, PhDMD<sup>16</sup>, Esther Hian Li Chan, MBBS, MRCP, FRCPATH<sup>17</sup>, Hye Jin Kang<sup>18</sup>, Hyeon-Seok Eom, MD<sup>19</sup>, Sung Yong Oh, MD<sup>20</sup>, Youngil Koh, MD<sup>21</sup>, Hyo Jung Kim, MD PhD<sup>22</sup>, Se Hyung Kim, MD<sup>23</sup>, Jong-Ho Won, MD<sup>24</sup>, Young Hoon Park<sup>25</sup>, Deok-Hwan Yang<sup>26</sup>, Soo Chin Ng, FRCP<sup>27</sup>, Jae-Cheol Jo, MD<sup>28</sup>, Won Seog Kim, MD PhD<sup>29</sup>

<sup>1</sup>Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea, Republic of (South)

<sup>2</sup>Division of Medical Oncology, National Cancer Centre, Singapore, Singapore

<sup>3</sup>Department of Internal Medicine, Kosin University Gospel Hospital, Busan, Korea, Republic of (South)

<sup>4</sup>Department of Hematology, The First Affiliated Hospital of Soochow University, Suzhou Hongci Hematology Hospital, National Clinical Research Center for Hematologic Diseases, Jiangsu Institute of Hematology, Suzhou, China

<sup>5</sup>Department of Medical Oncology, State Key Laboratory of Oncology in South China, Collaborative Innovation Center for Cancer Medicine, Sun Yat-Sen University Cancer Center, Guangzhou, China

<sup>6</sup>Sun Yat-Sen University Cancer Center, Guangzhou, CHN

<sup>7</sup>Sichuan Cancer Hospital, Chengdu, CHN

<sup>8</sup>Department of Medicine and Biosystemic Science, Kyushu University Graduate School of Medicine, Fukuoka, Japan

<sup>9</sup>Division of Hematology and Excellence Center in Translational Hematology, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand

<sup>10</sup>Department of Hematology, Ampang Hospital, Selangor, Malaysia

<sup>11</sup>Division of Hematology-Oncology, Department of Internal Medicine, Korea University College of Medicine, Seoul, Korea, Republic of (South)

<sup>12</sup>Chonbuk National University Medical School, Jeonju, KOR

<sup>13</sup>National Cheng-Kung Univ. Hospital, Tainan, TWN

<sup>14</sup>Department of Internal Medicine, Seoul National Univ. Bundang Hospital, Seongnam-Si, KOR

<sup>15</sup>Department of Internal Medicine, Ajou University School of Medicine, Suwon, KOR

<sup>16</sup>Dongsan Medical Center, Keimyung University, Daegu, Korea, Republic of (South)

<sup>17</sup>Department of Haematology-Oncology, National University Cancer Institute, Singapore, Singapore

<sup>18</sup>Korea Cancer Center Hospital, Seoul, KOR

<sup>19</sup>National Cancer Center, Goyang, Gyeonggi-Do, KOR

<sup>20</sup>Dong-A University Hospital, Busan, Korea, Republic of (South)

<sup>21</sup>Department of Internal Medicine, Seoul National University Hospital, Seoul National University College of Medicine, Seoul, Korea, Republic of (South)

<sup>22</sup>Hallym University Sacred Heart Hospital, Anyang-Si, KOR

<sup>23</sup>Department of Internal Medicine, Soonchunhyang University Bucheon Hospital, Bucheon-Si, KOR

<sup>24</sup>Soon Chun Hyang Univ. Hosp. College of Medicine, Seoul, KOR

<sup>25</sup>Ewha Womans University Mokdong Hospital, Seoul, Korea, Republic of (South)

<sup>26</sup>Department of Hematology-Oncology, Chonnam National University Hwasun Hospital, Hwasun, Korea, Republic of (South)

<sup>27</sup>Subang Jaya Medical Center, Petaling Jaya, Malaysia

<sup>28</sup>Ulsan University Hospital, Ulsan, KOR

<sup>29</sup>Samsung Medical Center, Seoul, KOR

**Introduction**

We conducted a multinational, multicenter retrospective registry study to better define the treatment patterns and survival outcomes of newly diagnosed patients with mantle cell lymphoma (MCL) in the Asia-Pacific region.

## Methods

Data were collected from newly diagnosed MCL patients between January 2008 and September 2019 from 27 hospitals in Asian countries, including China, Malaysia, Japan, Singapore, South Korea, Taiwan, and Thailand. The first interim analysis with 191 patients was previously reported. An updated analysis of 381 patients was performed at the data cutoff date of June 20, 2023.

## Results

The median age was 62 years (range, 26-90), and 282 patients were male (74.0%). The majority of the patients had stage 3 or 4 disease ( $n = 329$ , 87.1%). Based on the MIPI score, 20.7% ( $n = 139$ ) were classified as high-risk, while 39.4% ( $n = 150$ ) were classified as high-risk according to the IPI. The most frequently administered 1<sup>st</sup> line regimen was R-CHOP or R-CHOP-like regimens ( $n = 177$ , 46.5%), followed by cytarabine-containing regimens ( $n = 113$ , 29.7%), including R-Hyper-CVAD ( $n = 78$ ), and bendamustine-rituximab ( $n = 27$ , 6.3%). There was a significant difference in the treatment pattern between young (age < 65,  $n = 210$ ) versus elderly patients (age  $\geq 65$ ,  $n = 171$ ). A higher proportion of elderly patients received R-CHOP or R-CHOP-like regimens ( $n = 98$ , 57.3%) while cytarabine-containing regimens were more frequently administered in young patients ( $n = 97$ , 46.2%). The treatment response to 1st line regimens was available in 349 patients. The overall response rate (ORR) and the complete response (CR) rate among these patients were 91.1% and 57.9%, respectively. The response rates (ORR/CR rate) for each regimen were as follows; 91.4%/49.1% for R-CHOP or R-CHOP-like regimens, 93.5%/67.3% for cytarabine-containing regimens, and 96.2%/76.9% for bendamustine-rituximab (BR). With a median follow-up duration of 82.6 months, the median progression-free survival (PFS) was 40.6 months, and the median overall survival (OS) was 86.8 months (Figure). The median PFS was 35.2 months for R-CHOP or R-CHOP-like regimens, 65.8 months for cytarabine-containing regimens, and 57.9 months for BR.

The role of upfront ASCT was evaluated in pts who are < 65 years old and achieved at least partial response (PR) to 1<sup>st</sup> line treatment ( $n = 181$ ). No significant differences were observed in baseline characteristics between patients who received upfront ASCT ( $n = 48$ ) and those who did not ( $n = 133$ ). There were no significant differences in PFS and OS between the ASCT and non-ASCT groups, with a 5-year PFS rate of 56.3% vs. 48.9% ( $P = 0.190$ ) and a 5-year OS rate of 82.1% vs. 76.1% ( $P = 0.069$ ), respectively.

The role of maintenance treatment was evaluated in patients who achieved PR or better to 1<sup>st</sup> line treatment and did not experience disease progression within 3 months after completion of 1<sup>st</sup> line treatment ( $n = 293$ ). A significantly higher proportion of patients in the non-maintenance group ( $n = 270$ ) was classified as a high-risk group according to the MIPI score compared with those who received rituximab maintenance ( $n = 23$ ) (20.3% vs. 0.0%,  $P = 0.043$ ). Rituximab maintenance was associated with significantly better PFS and OS compared with no maintenance group, with a 5-year PFS rate of 67.7% vs. 42.0% ( $P = 0.015$ ) and 5-year OS rate of 88.4% vs. 66.7% ( $P = 0.008$ ).

A total of 192 patients were treated with 2<sup>nd</sup> line regimens. The most frequently administered 2<sup>nd</sup> line regimen was cytarabine-based chemotherapy ( $n = 47$ , 24.5%), followed by ibrutinib ( $n = 46$ , 24.0%) and BR ( $n = 32$ , 16.7%). The ORR and the CR rate among these patients were 75.5% and 43.4%, respectively. The median 2<sup>nd</sup> PFS was 16.8 months.

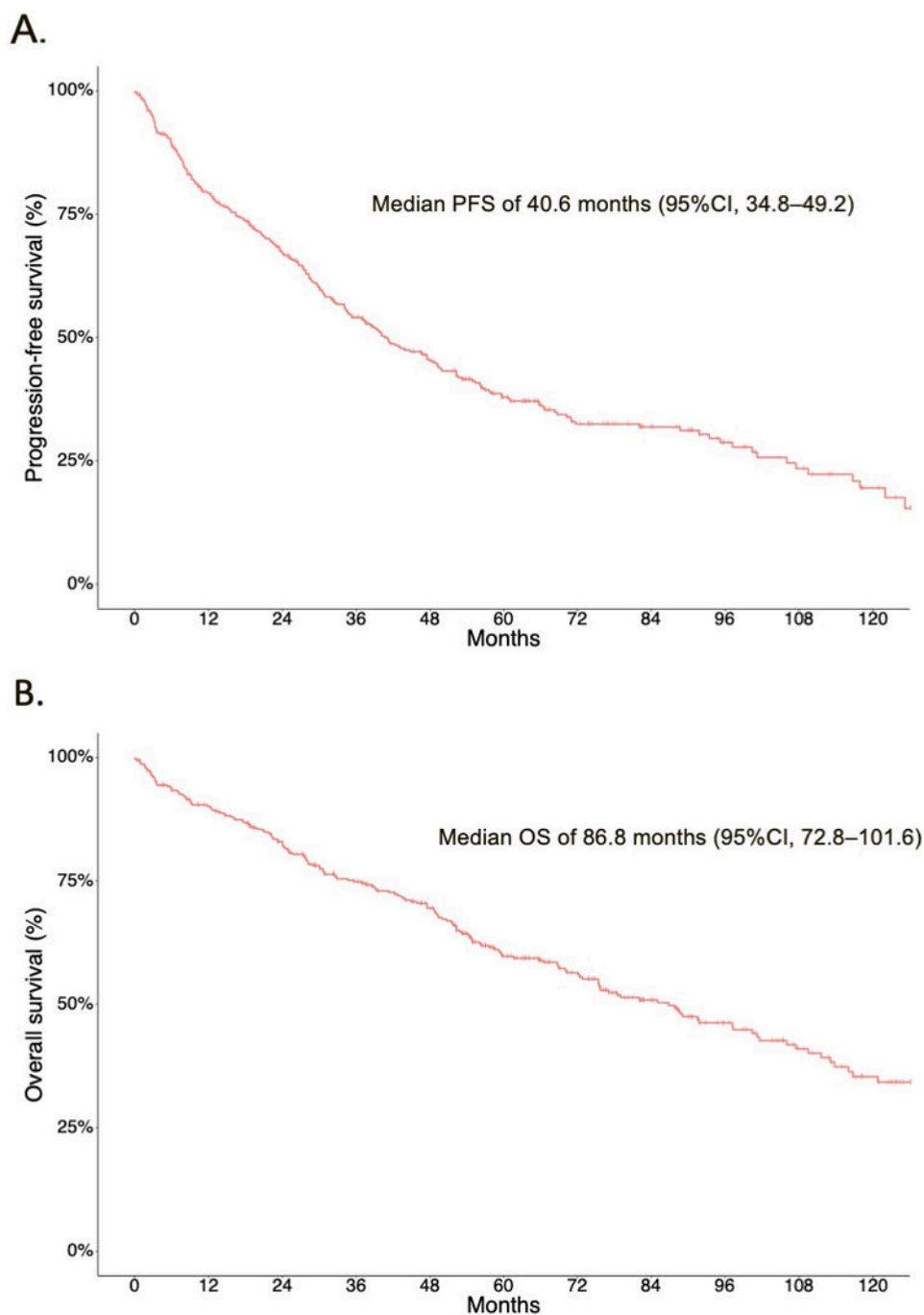
## Conclusion

Our study demonstrated that the majority of patients with MCL in the Asia-Pacific region were treated with rituximab-based regimens in the contemporary era. However, R-CHOP or R-CHOP-like regimens are still the most commonly used 1<sup>st</sup> line treatment. The rate of upfront ASCT and usage of rituximab maintenance was relatively low, and there was no significant difference in survival outcomes according to upfront ASCT. Although rituximab maintenance was associated with improved survival, patients without maintenance treatment had a higher proportion of high-risk patients in the current study. Our contemporary real-world analysis showed improved survival outcomes compared to previous studies.

**Disclosures Yoon:** Novartis: Consultancy, Honoraria, Speakers Bureau; Roche: Honoraria, Research Funding, Speakers Bureau; Samyang: Research Funding; BMS: Honoraria, Speakers Bureau; GI cell: Consultancy; Beigene: Consultancy; Takeda: Honoraria, Speakers Bureau; Janssen: Consultancy, Honoraria, Research Funding, Speakers Bureau; Kirin Pharm: Honoraria, Speakers Bureau; Boryung: Research Funding; Pharos iBio: Consultancy; Abclon: Consultancy; GC cell: Consultancy. **Chan:** Janssen: Honoraria, Speakers Bureau; Beigene: Honoraria, Speakers Bureau; DKSH: Speakers Bureau; Specialised Therapeutics: Honoraria, Speakers Bureau; MSD: Honoraria, Speakers Bureau; Roche: Honoraria, Speakers Bureau; Novartis: Honoraria, Speakers Bureau; AstraZeneca: Honoraria, Speakers Bureau; Takeda: Honoraria, Speakers Bureau; Antengene: Honoraria, Speakers Bureau; Scinnohub Pharmaceuticals: Research Funding; Symbio Pharmaceuticals: Research Funding. **Kato:** AbbVie: Consultancy, Research Funding; AstraZeneca: Consultancy; Chugai: Consultancy, Honoraria, Research Funding; Daiichi Sankyo: Consultancy, Research Funding; Eisai: Consultancy, Research Funding; Janssen: Consultancy, Honoraria, Research Funding; Novartis: Consultancy, Honoraria, Research Funding; MSD: Honoraria, Research Funding; Bristol-Myers Squibb: Honoraria, Research Funding; Kyowa Kirin: Honoraria, Research Funding; Ono: Honoraria, Research Funding. **Koh:** Proteina: Current holder of stock options in a privately-held company; Curocell: Current equity holder in private company; Deep Metrics: Current equity holder in private company; Novartis Korea: Consultancy; Janssen Korea: Consultancy; Takeda Korea: Consultancy; BMS Korea: Consultancy; Genome Opinion: Current Employment, Current equity holder in private company, Membership on an entity's Board of Directors or advisory committees; Tomocube: Current holder of stock options in a privately-held

company, Membership on an entity's Board of Directors or advisory committees; *Sanofi Genzyme*: Research Funding. **Kim:** *Sanofi, Beigene, Boryong, Roche, Kyowa-kirin, Donga*: Research Funding.

**Figure. Survival outcome of patients in the entire cohort (n = 381).  
(A) Progression-free survival (B) Overall survival**



**Figure 1**

<https://doi.org/10.1182/blood-2023-183100>