

**Title- Waldenström Macroglobulinemia in India: Clinical characteristics, Treatment profile and Outcomes in a Multicentre Cohort of 580 Patients**

**Authors-** Charanpreet Singh<sup>1</sup>, Bhausahab Bagal<sup>2</sup>, Dibakar Podder<sup>3</sup>, Sharon Lionel<sup>4</sup>, Biju George<sup>4</sup>, Kaustav Ghosh<sup>5</sup>, Tuphan Kanti Dolai<sup>5</sup>, Monisha Hari Madhavan<sup>6</sup>, Neeraj Sidharthan<sup>6</sup>, Sanjeev<sup>7</sup>, Anusree Prabhakaran<sup>8</sup>, Sameer Melinkeri<sup>8</sup>, Avriti Baveja<sup>9</sup>, Uttam Nath<sup>10</sup>, Nikhil Nagpal<sup>10</sup>, Parathan Karunakaran<sup>11</sup>, Jose Easow<sup>12</sup>, Dinesh Bhurani<sup>13</sup>, Chandran K Nair<sup>14</sup>, Rudra Narayan Swain<sup>15</sup>, M Joseph John<sup>16</sup>, Reshma Roshan<sup>17</sup>, Shailendra Prasad Verma<sup>18</sup>, Shuchita Pathak<sup>19</sup>, Irom Anil Singh<sup>20</sup>, Avinash Kumar Singh<sup>21</sup>, Ketan Chandra Nathani<sup>21</sup>, Saroj Dhankhar<sup>22</sup>, Rajeev Sandal<sup>23</sup>, Vishvdeep Khushoo<sup>24</sup>, Uday Yanamandra<sup>25</sup>, Velu Nair<sup>26</sup>, Pankaj Malhotra<sup>1</sup>

**Affiliations**

- <sup>1</sup> Postgraduate Institute of Medical Education and Research, Chandigarh
- <sup>2</sup> Tata Memorial Hospital, Mumbai
- <sup>3</sup> Tata Medical Center, Kolkata
- <sup>4</sup> Christian Medical College, Vellore
- <sup>5</sup> Nil Ratan Sircar Medical College & Hospital, Kolkata
- <sup>6</sup> Amrita Institute of Medical Sciences, Kochi
- <sup>7</sup> Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow
- <sup>8</sup> Deenanath Mangeshkar Hospital and Research Center, Pune
- <sup>9</sup> Himalayan Institute of Medical Sciences, Dehradun
- <sup>10</sup> All India Institute of Medical Sciences, Rishikesh
- <sup>11</sup> Adyar Cancer Institute, Chennai
- <sup>12</sup> Apollo Hospital, Chennai
- <sup>13</sup> Rajiv Gandhi Cancer Institute & Research Centre, New Delhi
- <sup>14</sup> Malabar Cancer Centre, Thalassery
- <sup>15</sup> SUM Hospital, Bhubaneswar
- <sup>16</sup> Christian Medical College, Ludhiana
- <sup>17</sup> Sher-i-Kashmir Institute of Medical Sciences, Srinagar
- <sup>18</sup> King George's Medical University, Lucknow
- <sup>19</sup> Dayanand Medical College and Hospital, Ludhiana
- <sup>20</sup> Jawaharlal Nehru Institute of Medical Sciences, Imphal
- <sup>21</sup> Paras HMRI Hospital, Patna
- <sup>22</sup> All India Institute of Medical Sciences, Raipur
- <sup>23</sup> Indira Gandhi Medical College, Shimla
- <sup>24</sup> All India Institute of Medical Sciences, Nagpur
- <sup>25</sup> Armed Forces Medical College, Pune
- <sup>26</sup> Apollo Cancer Center, Gandhinagar

## ABSTRACT

**Introduction:** Waldenström macroglobulinemia (WM) is a rare B-cell lymphoproliferative disorder, and reports from India are limited. We aimed to describe the clinical profile, treatment patterns and outcomes of a large multicentre Indian cohort.

**Methods:** This is a retrospective study across 24 centres in India, and included patients diagnosed with symptomatic WM between 2005 and 2026. Baseline characteristics, first-line therapy and responses were recorded. Progression-free survival (PFS) and overall survival (OS) were estimated by the Kaplan-Meier method.

**Results:** Five-hundred and eighty patients were included in the study, with the majority being diagnosed between 2021-2026 (55%). The median age was 63 years (Range=23–89), and 417 patients (71.9%) were male. Symptomatic anemia was present in 80.7% patients, while constitutional symptoms and splenomegaly were seen in 49.4% and 36.7% patients, respectively. The median hemoglobin was 7.8 g/dL (Range=2.3–17.3) and median serum IgM was 3.9 g/dL (Range=0.1–18.7). MYD88 L265P mutational information was available for 281/580 (48.4%) patients and the mutation was observed in 201 patients (71.5%). The IPSS-WM score classified 62.9% patients as high risk, in comparison to the MSS-WM score, which classified only 32.9% patients as high risk.

Chemoimmunotherapy was the commonest first-line therapy used (423 patients, 72.9%), and the most common regimen used was Bendamustine-Rituximab (BR) (50.2%). The overall and major response rate to frontline therapy was 85.5% and 79.1%, respectively. Patients receiving frontline BR therapy had a longer PFS in comparison to patients receiving Rituximab-Cyclophosphamide-Dexamethasone and Bortezomib-Dexamethasone-Rituximab (Median PFS=63 vs 31 vs 41 months;  $p<0.001$ ).

At a median follow-up of 34 months, the median PFS and OS were 48 months (95% CI 43–56 months) and 135 months (95% CI 113–NR), respectively. The 3-year PFS was 61.1% (95% CI 56.3–65.6) and the 3-year OS was 87.0% (95% CI 83.6–89.8). Relapse/progression occurred in 251 patients (43.3%) and 204 patients (36.8%) received second line therapy. MYD88-mutated patients had numerically higher rates of relapse (49.8% vs 42.5%;  $p=0.29$ ) and second-line therapy use (41.1% vs 36.5%;  $p=0.58$ ), but neither difference was statistically significant.

One hundred and thirteen patients (19.5%) died during follow-up, with 46 patients (7.9%) dying within the first year of diagnosis. The most common known cause of death was related to progressive disease ( $n=30$ ; 26.5%), followed by infection ( $n=28$ ; 24.8%). On multivariable analysis, older age (HR 1.04 per-year, 95% CI 1.01–1.08), IgM >7.5 g/L (HR 2.76, 1.37–5.56), elevated beta-2 microglobulin (HR 1.07 per mg/L, 1.00–1.14) and lower

serum albumin (HR 0.66 per g/dL, 0.44–0.998) were independent predictors of inferior OS.

**Conclusions:** This is the largest cohort of Waldenström macroglobulinemia reported from India. Patients presented with severe anemia and a high proportion of high-risk disease, yet response rates and survival were broadly comparable to those reported in western series. MYD88 testing was available for just under half of the patients, but only 71.5% were observed to have the mutation. Prospective studies are needed to define the genomic profile and refine the risk stratification in the Indian context.

---

**Form record received**

---

**From** International Workshop on Waldenstrom's Macroglobulinemia <pattersonkent@outlook.com>

**Date** Wed 29-Jul-26 6:20 AM

**To** Patterson, Christopher <Christopher\_Patterson@DFCI.HARVARD.EDU>

External Email - Use Caution

Record saved to database with ID: 216

Form ID: 1

Form title: Abstract Submission

Form name: Abstract\_Submission

Submitted at: 2026-07-29 06:19:36

Submitter IP: 14.139.56.195

User-ID: 0

Username: -

User full name: -

Submitter provider: Unknown

Submitter browser: Mozilla/5.0 (Macintosh; Intel Mac OS X 10\_15\_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/150.0.0.0 Safari/537.36

Submitter operating system: mac

First Name: Charanpreet

Last Name: Singh

Email: charanpreetsingh14@gmail.com

Registration Type: Delegate

Abstract Title: Waldenström Macroglobulinemia in India: Clinical characteristics, Treatment profile and Outcomes in a Multicentre Cohort of 580 Patients

Select abstract file to attach:

/home/dkwolfpk2016/public\_html/waldenstromsworkshop/media/breezingforms/uploads/iwwwmabstract  
final.docx

Please consider me for a YIA grant: YIA Grant Consideration

Conference: IWWW13