

Correlation Between Fatigue and Hb Level in Multiple Myeloma Patients: Results of a Cross-Sectional Study

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**On behalf of the Italian
Multiple Myeloma Study
Group**



MYELOMA

Fatigue Survey in Multiple Myeloma (MM)

- Large, cross-sectional survey
- Enrolled 1071 patients with MM
- 24 Italian hematology centers
- November 2001 to March 2002

Survey Design and Data Collected

Design

- Adult MM patients (≥ 18 years old) eligible regardless of disease or treatment status
- Patients evaluated during routine visit (snapshot)

Data collected

- Disease status
- Treatment type and status
- Hb level
- Creatinine value
- Performance status
- FACT-An questionnaire

Demographics and Characteristics (I)

	Patients (n = 1071)
Gender* n (%)	
Male	527 (50.5)
Female	516 49.5
Age† years (n)	64.6 ± 10.1 (1062)
≤ 50	9.0%
51–60	23.5%
61–70	35.6%
71–80	27.7%
> 80	4.0%
Disease duration‡ months (n)	36.1 ± 39.4 (984)

*Missing data for $n = 28$; †Missing data for $n = 9$, ‡Missing data for $n = 87$

Demographics and Characteristics (II)

Patients
(*n* = 1071)

Stage (Durie and Salmon)* *n* (%)

I	160 (15.4)
IIa	258 (24.8)
IIb	18 (1.7)
IIIa	536 (51.5)
IIIb	69 (6.6)

WHO score† *n* (%)

0	521 (51.9)
1	311 (31.0)
2	116 (11.6)
3	51 (5.1)
4	4 (0.4)

*Missing data for *n* = 30; †Missing data for *n* = 68

Demographics and Characteristics (III)

Patients
(*n* = 1071)

Disease status* *n* (%)

Newly diagnosed	223 (21.7)
In remission	590 (57.4)
Recurrent	155 (15.1)
No response	59 (5.7)

Ongoing MM treatment† *n* (%)

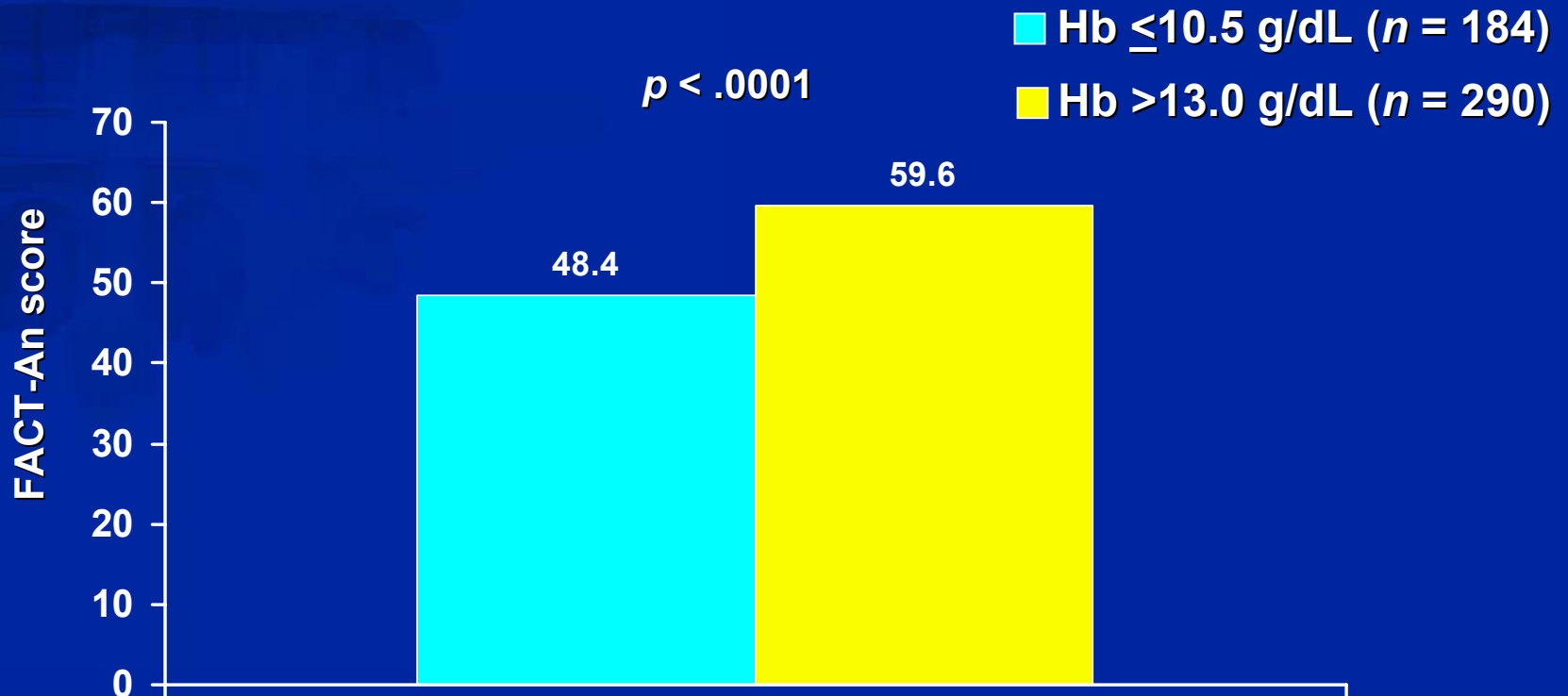
No	255 (24.8)
Yes	722 (75.2)

*Missing data for *n* = 44, †Missing data for *n* = 940

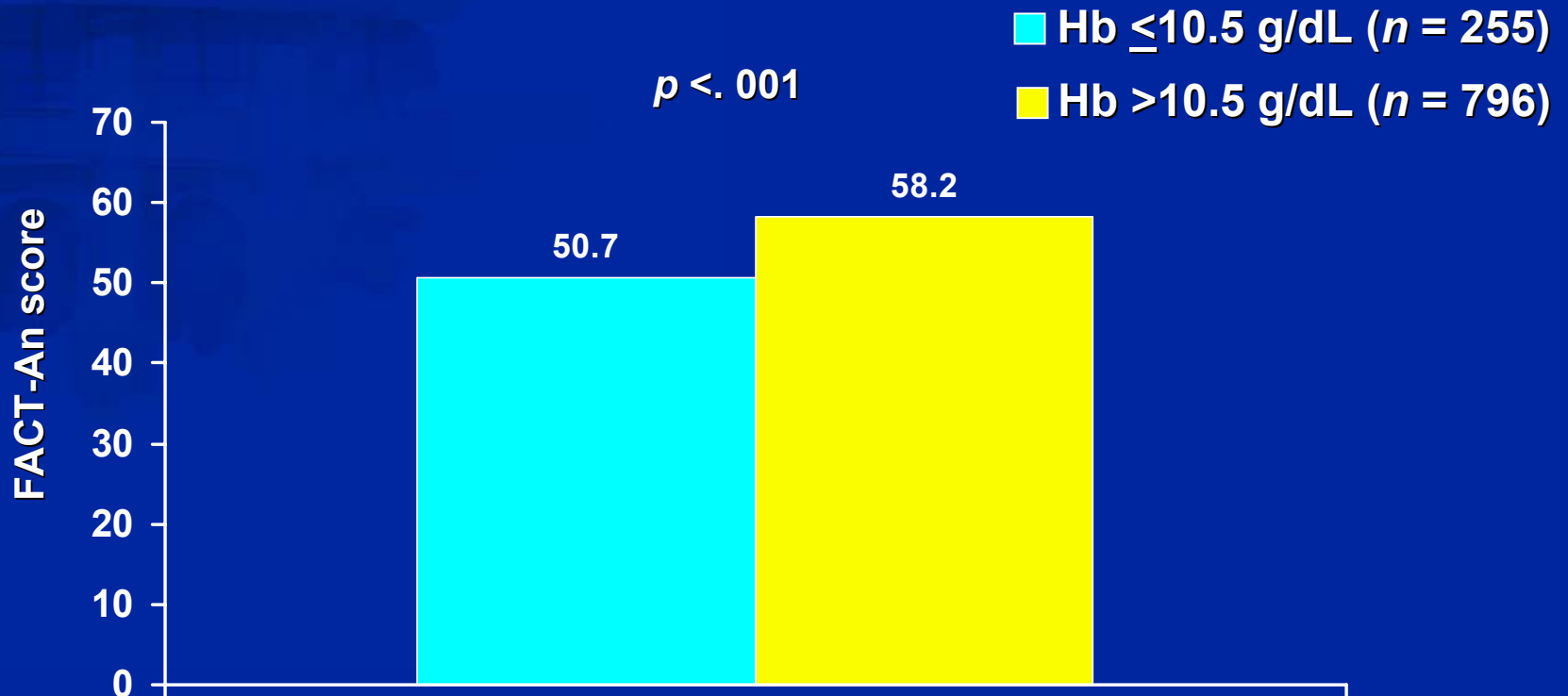
Antineoplastic Treatments

	Frequency
CT + corticosteroid	25.6
MP	14.6
VAD	6.1
Other	4.9
CT without corticosteroid	11.4
Melphalan	8.9
Cyclophosphamide	2.3
Other	0.2
Corticosteroid	8.4
Interferon	15.6
Thalidomide	11.0
Bisphosphonates	8.3
Radiotherapy	1.1

Patients with Lower Hb Levels Have Lower QOL



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Correlation of Hb and Other Factors

- **Significant differences in Hb level were related to:**
 - MM stage (I: 12.5 g/dL; II: 11.9 g/dL; III: 11.7 g/dL)
 - Treatment response (no response or relapse: 11 g/dL; remission: 12.4 g/dL)
 - concurrent chemotherapy (yes: 11.3 g/dL; no: 12.3 g/dL)
 - Age (≤ 50 yrs: 12.4 g/dL; 51-60 yrs: 12.2 g/dL; 61-70 yrs: 11.9 g/dL; >70 yrs: 11.6 g/dL)
 - Gender (women: 11.6 g/dL; men: 12.2 g/dL)

Correlation of Fact-An and Other Factors

- Higher correlation with Hb was observed for FACT-An fatigue subscale than non-fatigue items
- FACT-An scores were significantly lower in
 - older patients, particularly older women
 - patients with no response or relapse
 - patients with concurrent disease

Conclusions

- Hb had the highest predictive value on patient's quality of life (QOL)
- Correction of anemia (Hb \geq 12 g/dL) should be tried to improve the QOL of MM patients
- Patients' QOL may benefit from correction of anemia until sex-specific normal Hb values are attained

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