Correlation between fatigue and hemoglobin level in multiple myeloma patients: results of a cross-sectional study

This cross-sectional study showed a positive correlation between fatigue-related quality of life, evaluated with the FACT-An questionnaire, and hemoglobin level in 1071 patients with multiple myeloma. Multiple regression analysis adjusting for several covariates was used. Improved FACT-An scores in women and men were associated with hemoglobin increase up to sex-specific normal values.

Anemia is a very common finding in hematologic malignancies including multiple myeloma (MM), and is especially severe in patients with recurrent disease or during chemotherapy. Improved quality of life (QOL) is correlated with increased hemoglobin concentration. The objective of this cross-sectional study was to further examine the relationship between fatigue-related QOL, hemoglobin level and other characteristics in MM patients.

Of 1071 consecutive patients enrolled, hemoglobin and FACT-An data were available for 1046 (Table 1). The median disease duration was 23 months. MM treatment had previously been administered to 76.6% of the patients and included bone marrow transplant in 31.2%. Treatment was ongoing in 72.0% (chemotherapy with other model factors (fixed effects) were added as random effects. Data analyses were performed using SAS®. Of 1071 consecutive patients enrolled, hemoglobin and FACT-An data were available for 1046 (Table 1). The median disease duration was 23 months. MM treatment had previously been administered to 76.6% of the patients and included bone marrow transplant in 31.2%. Treatment was ongoing in 72.0% (chemotherapy with other model factors (fixed effects) were added as random effects. Data analyses were performed using SAS®.
of 0.227 was contributed by hemoglobin 0.046, concurrent disease 0.033, response phase 0.029, sex 0.014, stage 0.008, age 0.006, working status 0.006, and combinations of these factors 0.085. Transfusion dependence, disease duration, creatininemia, marital status, previous bone marrow transplant, and concomitant anticoagulant therapy did not significantly improve the model. WHO performance score (0, 48.5%; 1, 29.2%; 2, 11.5%; 3, 5.2%; 4, 0.4%; missing, 5.3%), although highly correlated with FACT-An score (Spearman’s r = -0.47, p = 0.0001), was considered an independent assessment rather than a predictor of patients’ well-being, and was therefore excluded from the model. FACT-An scores in women increased as hemoglobin increased until about 12 g/dL, whereas in men a plateau was attained is likely to improve fatigue-related QOL in MM patients.

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**References:**


**Letters to the Editor**

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Platelets

Retrospective analysis of 472 Chinese children with chronic idiopathic thrombocytopenic purpura: a single center experience

We retrospectively analyzed the clinical characteristics and management of 472 Chinese children (age 1-14 years) with chronic idiopathic thrombocytopenic purpura (ITP). The distribution of cases by age showed a maximum at 4 years and more patients below 7 years old than between 7 and 14 years old had ITP (337, 71.4% vs. 135, 28.6%). Variable bleeding signs occurred in this series of patients. Steroids therapy was effective for Chinese children with ITP whether as first- or second-line therapy. Traditional Chinese medicine was less effective than steroids.

Idiopathic thrombocytopenic purpura (ITP) is a disorder characterized by platelet destruction caused by an anti-platelet antibody that results in platelet phagocytosis via the reticuloendothelial system. Several papers involving children with chronic ITP have been reported, however, a large-scale experience of Chinese children with chronic ITP has not been reported. To explore the clinical characteristics and management of Chinese children with this condition, we retrospectively analyzed 472 consecutive Chinese children (age 1-14 years) with chronic ITP diagnosed in our hospital from January 1980 to December 2000. The diagnosis of ITP was based on the previously reported criteria except the cut-off age was 14 years in this study. The data were analyzed by SPSS10.0 statistical software. The response to therapy was calculated by the χ² test. A p value <0.05 was considered statistically significant. Of the 472 cases, we found a slight predominance of boys (256, 54.2%) over girls (216, 45.8%). The distribution of cases according to age (Figure 1) showed a maximum at 4 years old and more patients below 7 years old than between 7 and 14 years old had chronic ITP (337, 71.4% vs. 135, 28.6%). Our findings are similar to those reported by Kuhne et al. who compared Vietnamese and European cohorts of patients. However, our series showed that the frequency of boys with chronic ITP below one year of age (20 cases) was higher than that of girls (7 cases). This might be due to referral bias, because our hospital is the only one specialized in blood diseases in China, and those patients who were refractory to first-line therapy or who relapsed were usually referred to our hospital. Of the 382 patients for whom data were available, 117 (30.6%), 96 (25.1%), 82 (21.5%) and 87 (22.8%) patients had the initial diagnosis made in spring, summer, fall, and winter respectively. At diagnosis, of the 277 patients for whom data were available, there were 147 (53.1%) boys and 130 (46.9%) girls with a mean platelet count of 32.93±21.56×10⁹/L (range 2-90×10⁹/L) and 34.35±21.15×10⁹/L (range 1-90×10⁹/L), respectively. Initial platelet counts of <20×10⁹/L were found in 50 boys (34.0%) and in 45 girls (34.6%). The difference of platelet counts between boys and girls was not statistically significant (p>0.05). The vast majority of children had mild bleeding symptoms. Purpura and petechiae (430 cases, 91.1%), epistaxis (231 cases, 48.9%) as well as gum bleeding (79 cases, 16.7%) were often seen. No definitive statistical difference was found in the type of bleeding. Intracranial hemorrhage (ICH) occurred in two children (0.4%): one case in a boy 3 months after splenectomy (no platelet count recorded at that time; platelet count 26×10⁹/L on the day he was referred to our hospital) who died from a recurrent ICH one year later; the other case in a girl with a platelet count of 6×10⁹/L. Our data agree with Lyon’s findings on the risk of ICH in Japanese children.

Patients were treated with steroids, intravenous immunoglobulin (IVIG), immunosuppressive agents or traditional Chinese medicine (TCM). Patients who failed the initial therapy received open splenectomy, steroid and/or TCM as a second therapy. Treatment response was defined as follows: complete response (CR): a platelet count ≥100×10⁹/L persisting for at least 2 months with no maintenance therapy; partial response (PR): a platelet count between 50-100×10⁹/L; and no response (NR): a platelet count < 50×10⁹/L. Three-hundred and twenty-four (68.6%) children received first-line therapy (Table 1). Two hundred and thirty-four (72.2%) had been followed up for more than 6 months and 167 (51.5%) for more than 12 months. There were significant differences between steroid treatment and TCM treatment (p<0.005).