

Report NCU grant

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Main applicant: Ulf-Henrik Mellqvist

Project title: Nordic myeloma study group (NMSG) - organisation and trials

NCU grant received (€): 30 000

Project commencement and completion dates: See details below

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1. Brief description of the project, written in a language understandable to non-scientists (Maximum length: 100 words)

During 2010, the Nordic Myeloma Study Group was able to complete 3 clinical studies in the multiple myeloma field with support from NCU. We have studied the effect of consolidation treatment after autologous stem cell transplantation (ASCT), the possibility to increase the effect of a second transplantation at time of disease progress and also compared two different treatments at time of progress.

2. Summarize the major findings of the project (Maximum length: 400 words)

I. In our phase III multicenter study, NMSG15/05, patients were randomised 3 months after ASCT to receive consolidation treatment with bortezomib or no consolidation, which was standard in the Nordic countries at the time, we were able to show that consolidation improved progression free survival (PFS) with 6 months, from 21 to 27 months. This improvement was achieved by deepening the response after ASCT. We could see that patients that had already achieved a very good treatment response after ASCT did not benefit from consolidation. The positive effect was seen in patients with an inferior initial response. Quality of life was not affected by the consolidation treatment and toxicity was manageable.

II. The phase II study, NMSG16/07, focusing on the effect of bortezomib in combination with melphalan to patients undergoing ASCT, indicates that the combination is more efficient than single drug melphalan. Retrospective data shows that the second period of disease control is about 55 % of the first PFS. In this study, the second PFS was 80 % compared to the first in median. Every patient was his/hers own control. Based on these results, we have designed a new randomised study aiming at enhancing the effect of relapse therapy and also explore the interesting findings made by Anette Vangstedt that interferon alfa may be very beneficial for patients with wild genotype of NF-kappa B .

III. The phase III trial, NMSG17/07 comparing thalidomide plus dexamethasone to bortezomib and dexamethasone as second line treatment at time of disease progression did not show any differences in survival. The study was designed as a cross over trial. Unfortunately, the study had to be closed prematurely due to diminishing inclusion. This was caused by the fact that more and more patients receive thalidomide and/or bortezomib in first line of treatment and this was an exclusion criteria in the study.

3. Describe how the project has increased our knowledge of the prevention, cause and/or cure for cancer (Maximum length: 150 words)

I. The results have great implication on the treatment routines in the Nordic countries. Together with results from other studies, we can now recommend that patients with less than a very good partial response after ASCT should be offered further treatment while we will not continue treatment for patients with a good response after initial therapy.

II. Since the introduction of ASCT in multiple myeloma, high dose melphalan has been unchallenged as induction treatment. This study indicates that the effect can be which might lead to further improvements of relapse treatment.

III. Even though the study had to be closed before the calculated number of patients was included, the results questions the general concept that bortezomib is more efficient than thalidomide in the relapse setting. This means that the relapse treatment can be more individualised.

4. Outline how Nordic cooperation has added value to this project (Maximum length 100 words)

Since the yearly incidence of multiple myeloma is only 6/100 000, no Nordic country can manage to perform clinical randomised studies within this field so the Nordic cooperation was essential for all projects. IN NMSG15/05, a cooperation was also begun with a centre in Tallinn, Estonia. This was very successful and for our new upcoming phase III trial in younger myeloma patients, both Tallinn and Tartu in Estonia will participate.

5. Publications resulting from this grant

I. The results have been submitted.

II. The results are in manuscript.

III. Thalidomide and dexamethasone versus bortezomib and dexamethasone for melphalan refractory myeloma: A randomized study. Martin Hjorth et al. Accepted for publication in Eur J Haem.