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New multiple myeloma treatment induced total remission in 33 percent of patients

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A study, lead by Dr. Laura Rosiñol, researcher of the *Haematooncology* Group of Hospital Clínic-IDIBAPS (Barcelona) in collaboration with Dr Joan Blade, researcher in the same group, administered alternately two drugs (Bortezomid and Dexamethasone) before conducting autologous bone marrow transplantations. The aim of this second phase trial was to assess the treatment's overall response rate, its toxicity in patients, the possibility of recovery of innate stem cells, and the response kinetics which is calculated by measuring M-protein concentrations in serum and urine. M-protein is associated with myeloma presence.

This research work, conducted in the frame of the PETHEMA network, has been coordinated by Hospital Clínic de Barcelona and had the participation of eight more Spanish hospitals: Hospital Germans Trias i Pujol, Hospital Clínico Salamanca, Hospital de Sant Pau, Hospital Clínico de Madrid, Hospital La Princesa, Hospital 12 de Octubre and Hospital La Fe. A total of 40 patients between 41 and 65 years with newly diagnosed multiple myeloma participated in this study. All of them underwent six treatment cycles with a 10-day break between each, and were administered Bortezomid or Dexamethasone alternately.

This study has showed very relevant facts. The first notable fact is that there was a global reduction of M-protein concentration in both urine and plasma, reflecting a global reduction of tumour cells. Thus, a highly efficient anti-myeloma effect was observed, and the post autologous transplantation response index was favourable: a 94% response, one third of which (33%) was of complete response (CR) and 22% was a very

good partial response (VGPR).

Another surprising result was the speed at which the effect was achieved – i.e. the highest reduction in M-protein was detected within the first four treatment cycles. It should be mentioned that the first two cycles already caused an 82% reduction. These results set the base for further clinical trials in order to reduce the total number of previous medication cycles. A change like this in the therapeutic guidelines would not only anticipate transplantation but would also result in reduction of both economical costs and medication.

Last but not least, the observed good treatment tolerance and the ample recovery of bone marrow stem cells reinforce this therapy as the best option against multiple myeloma before autologous transplantation.

Source: IDIBAPS - Institut d'Investigacions Biomèdiques August Pi i Sunyer