

THIRD PARTY MESENCHYMAL STROMAL CELLS FOR THERAPY OF ACUTE GRAFT-VERSUS-HOST DISEASE A SINGLE CENTER EXPERIENCE

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Mesenchymal stromal cells (MSCs) have been used to treat acute or chronic GvHD after allogeneic hematopoietic stem cell transplantation (HSCT). We treated 16 patients between 2007 and 2019, 5 on individual compassionate use, and 11 with MSC provided by different companies, either under compassionate use (n=2), within an international clinical trial (n=2) or purchased as off the shelf product (n=7). For 5 patients MSC were obtained bone marrow (BM), 11 received MSC according to the company's policy. The median age was 38.5 years (range: 18 to 74) and 10/16 were females. Eleven patients were transplanted for acute leukemia, 3 for myelodysplastic/proliferative syndromes, 2 for lymphoma. Eight patients were in complete remission (CR) at time of HSCT. Twelve patients were transplanted from matched donors after RIC. Fifteen patients had acute GvHD (12 had aGvHD grade IV). Four patients received MSC for GvHD post-DLI (2 acute, 2 chronic (extensive)). Two patients with chronic GvHD post-DLI with extensive skin ulcerations had partial responses (PR) to MSC treatment, with complete resolution of the skin lesions. Five patients had CR of aGvHD, 4 patients had partial responses, 6 did not respond and one patient was not evaluable. Ten patients died because of complications related to GvHD, 3 patients are alive to date, one for more than 10 years post-HSCT. Our data confirm results of other groups and underline that for increased overall survival MSC should be administered as early as possible, preferably as first "second-line therapy".