

A CASE REPORT OF STR ANALYSIS TO DISTINGUISH BETWEEN DONOR AND RECIPIENT AT THE BONE MARROW TRANSPLANTATION SPECIMENS

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STR genotyping is considered a good tool for monitoring bone marrow engraftment after allogenic transplantation and provides a quick and accurate assessment of the contribution of both donor and/or recipient hematopoietic cells in post-transplantation specimens.

In the present study, we have attempted to analyze the ratio of donor versus recipient cells in the post-transplant peripheral blood, spleen, kidney and bone marrow specimens. Specimens were taken from the traffic accident victim who was engrafted from bone marrow female donor. DNA fingerprints and Semi-quantitative Real time PCR are used to determine the portion of donor vs recipient within the total DNA. Blood and kidney specimen displayed recipient DNA profile. Spleen specimen showed donor DNA profile. Interestingly, lung tissue showed mixed profiles. This result suggests that crime scene investigation with a more careful approach is required.