

CROSS-MATCH IN KIDNEY TRANSPLANTATION

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Kidney transplantation is a method of treating patients with kidney failure. Today, organ transplants from living related and unrelated donors as well as deceased donors (cadaveric transplantation) are used. Importing biological materials (organs, tissues, cells) in the recipient organism leads to immune response with formation of specific antibodies that react with donor HLA antigens. An important criterion for organ allocation is negative result of cross-match, which is done by the CDC method. The CDC cross-match as a gold Eurotransplant standard must be performed prior to transplantation. The presence of donor specific antibodies can be determined by use of the Lu-

minex methodology, which is a complex system for the detection and determination of specific anti-HLA antibodies. The test is based on polystyrene beads that bind HLA-antigens of kidney donor. In case of the presence of donor specific anti-HLA antibodies in serum of the kidney recipient, it comes to specific binding between donor HLA antigens and recipient anti-HLA antibodies. In kidney transplantation, cross-match deserves first place in laboratory diagnosis for the selection of organs recipients. Therefore, cross-match is a decisive criterion for the possible kidney transplantation.