roc. 10th Congr. int. Soc. Blood Transf., Stockholm 1964; pp. 155–162 (1965)

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Studies on Antibodies Accompanying Homograft Rejection

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The immunological nature of homograft rejection has been established beond any reasonable doubt. The role of cell mediated and humoral immunoogical mechanisms has been extensively investigated without a final answer as o which of these immunological responses should be primarily blamed for he homograft rejection. Whether the humoral antibodies are by themselves eleterious to the homograft or not, their detection still brings most valuable nformation.

Several serological procedures have been used in order to detect humoral ntibodies accompanying homograft rejection, including hemagglutination 7, 8], cytotoxicity [9], leukoagglutination [1], and cutaneous anaphylaxis 12, 18]. In the present study, application of mixed agglutination and antiglo-ulin consumption tests has been explored.

Mixed agglutination should be defined as a procedure in which cells of norphologically distinguishable types are brought together by antibodies. The technique was originally described by Topley *et al.* [16] and then it was sed by a few other investigators [6, 11, 17].

Coombs (for references see 4) should be given credit for elaborating this rocedure to the point where it is a valuable, almost routine, laboratory tool. Högman [10] and Fagraeus and Espmark [5] applied the mixed agglutination echnique to studies on tissue cultures. This method has also been used extenively in our laboratory. Reactions between cell cultures infected by measles irus and anti-viral antibodies were studied [2]. In testing cell cultures of arious species origin against heteroimmune sera to organ suspensions, a new ype of species-specific antigens which are thermolabile and saline non-extractble was described [13]. Recently, we found that this procedure may be uccessfully employed to study antibodies accompanying homograft rejecion.

Briefly, the principle of the procedure employed was as follows. Monoayer cell cultures were incubated with transplantation sera. The binding of