CHANGES IN LEUCOCYTE ADHESIVENESS ACCOMPANYING LASER IRRADIATION. Harvey N. Mayrovitz, Mary P. Wiedeman, and Guido Ascanio. Temple University School of Medicine, Phila., Pa. 19140.

The rate of appearance (N) and average velocity (v) of circulating leucocytes determined from in vivo measurements in microvessels of the bat wing were used as indices of leucocyte-vessel wall adhesiveness. Laser irradiation of microregions of tissue, adjacent to vessels under observation, were used to probe the time course and spatial dependencies of leucocyte adhesiveness changes. Significant increases in control levels of N and reductions in v were demonstrated with no observable alteration in platelet activity. The time course of the post irradiation response, as measured at a given position from the irradiation site, provides information regarding the time constants of the as yet unknown processes causing increased leucocyte adhesiveness. Further, the quantification of leucocyte adhesiveness as a function of distance from the irradiated site provides information on the nature of the spatial decay of the adhesive inducing mechanisms.

All compounds that are designated by code or initial letters must be identified adequately in the abstract, e.g., MJ-1999: 4-(2-isopropylamino-1-hydroxyethyl) methanesulphonamide hydrochloride.

3. MAILING ADDRESS OF FIRST AUTHOR

Harvey N. Mayrovitz, Ph.D.
Temple Univ. Sch. of Med., Dept. of Physio
Philadelphia, Pa. 19140
Zip...19140
Telephone no.: Area Code...215...=...221-3692...

Mail to:
Dr. Orr E. Reynolds, Executive Secretary
American Physiological Society
9350 Rockville Pike
Bethesda, Maryland 20814