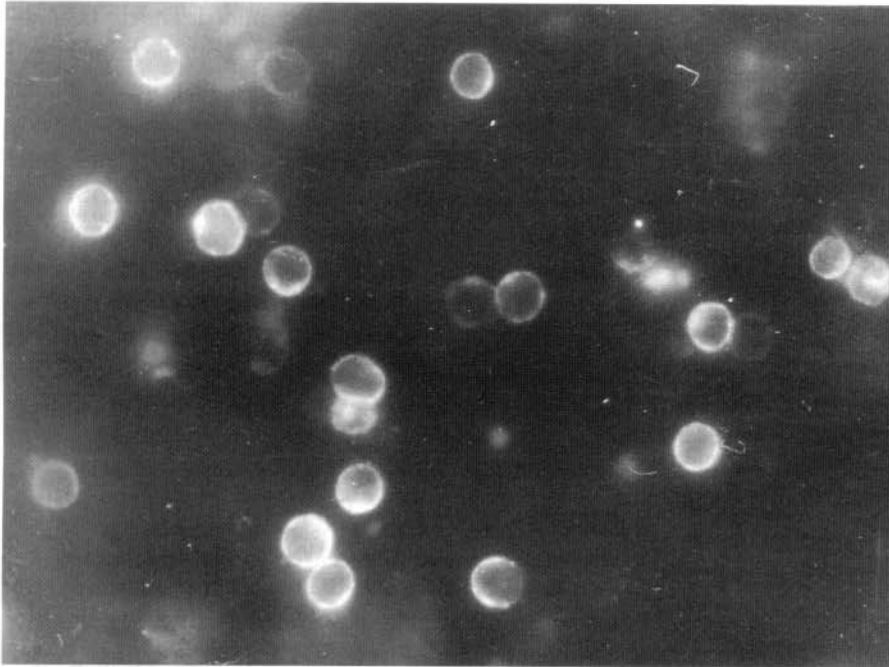


fluorescence induced with anti-CD 19 labeled with R-phycoerythrin indicated B lymphocytes populating the reproductive tract tissue (Fig. 5d).

Positive immunofluorescence of lymphocytes in mucosal tissues of vagina, cervix, oviduct and uterus was observed from day 1 to day 13 after the ISF intrauterine infusion. No positive reactions were observed in the ovarian tissue.



a



b

In vivo adsorption of ISF on WBC and splenocytes of the ISF-treated mice was studied by indirect immunofluorescence. ISF was detected on the membranes of 50–60% WBC and splenocytes of the mice subjected to intrauterine infusion from day 3 to day 13 (Fig. 6), but only on 10–20% cells isolated 15–16 days after the intrauterine administration of ISF. The reaction of LIS-4 with cells isolated from mice 20 days after ISF infusion was negative. The reaction of lymphocytes and splenocytes obtained from control mice was negative. The fluorescence of tissue sections and lymphocytes was prevented by prior adsorption of anti-ISF monoclonal antibody LIS-4 with lyophilized ISF.

Discussion

Mucosal immune system is a distinct and separated section of the host's immune defense and differs from the lymphoid tissues at peripheral sites. Also, the regulation of the mucosal immune system is distinct from the systemic immune mechanisms. The mucosal immune system can be divided into inductive sites where antigens are encountered and are endocytosed, processed and presented to both B and T lymphocytes in mucosal effector tissues (McGhee et al., 1994). The female reproductive tract possesses a number of nonspecific barriers to pathogen invasions. Without these barriers adoptive immunity, determined by subclasses of antibodies and immunocyte populations present in the reproductive tract, becomes critical for protection against invading pathogens (Wira and Sullivan, 1985). Previous evidence supported the suggestion that the predominant immune responses occurring in the genital tract are derived from the mucosal immune system (Kutteh et al., 1988). Immunohistochemical studies have shown that the glandular epithelium of the endocervix expressed a secretory component essential for

Fig. 6. a – immunofluorescent detection of ISF on membranes of splenocytes 13 days after cessation of the intrauterine deposition of the immunosuppressor. b – negative immunofluorescence of splenocytes. Control mice were infused with saline. Magnification 730 x.