ETIOLOGICAL AND SEROLOGICAL STUDIES IN PATIENTS WITH *CHLAMYDIA TRACHOMATIS* INFECTION IN SAPPORO

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Chlamydia (*C.*) *trachomatis* was detected in 77 patients with chlamydial inclusion conjunctivitis (I. C.) and 53 with chlamydial urethritis from April 1985 to February 1988 in Sapporo. In order to detect *C. trachomatis*, a direct immunofluorescence asssay (MicroTrak) and an isolation technique in tissue culture were used. Serotyping of 22 isolates was attempted using mouse immune sera against the isolates. A serological survey was also performed on 40 I. C. patients and 11 parents of I. C. infants.

Chlamydial antigen showed positive in 22 of 77 (26.0%) patients with I. C., and in 16 of 53 (30.2%) with urethritis in the immunofluorescence assay. *Chlamydia* was isolated in 38 of 77 (49.4%) patients with I. C., and in 19 of 53 (35.8%) with urethritis. Of 43 male I. C. patients, 15 (34.9%) showed positive by the immunofluorescence assay and 25 (58.1%) showed positive by isolation. Of 34 female I. C. patients, 5 (14.7%) were positive for the antigen and 13 (38.2%) showed positive by isolation. Therefore, the isolation technique was more sensitive than the immunofluorescence assay. The isolation rate was higher in I. C. patients than in urethritis patients, and chlamydial organisms were detected more frequently in male patients with I. C. than in females.

Immune sera were prepared in mice against 22 isolates and were tested for cross-reaction patterns to standard strains of each serotype (A-L3). Serotyping of the isolates was not sucessful in all cases because of the high crossreactivity of the mouse immune sera among *C. trachomatis* serotypes.

Sera were obtained from 40 I. C. patients and 11 parents of I. C. infants, and tested for IgG, IgM, and IgA antibodies against *C. trachomatis* serotypes C, D, and L2 using an indirect immunofluorescence assay (IFA). No difference was observed for IgG-positive rates among strains. The IgM-positive rate in D was higher than those of other serotypes. Few sera were positive for IgA antibody.

Sera from 39 I. C. patients were tested against *C. paittaci* strains, Izawa-1 and P-1041. Although *C. trachomatis*-specific sera were predominant, some sera showed equally high antibody-titers against *C. psittaci*.