

### Cancer risk

*H Koyi et al. APMIS. September (2001) Vol. 109, #9 p 572.*

Chronic inflammation is thought to be a significant aetiological factor in lung cancer. Persistent or severe lung disease might therefore show an association with lung cancer.

Is there an association between Chlamydia pneumonia (Cpn) (responsible for mild pneumonia) infection and Lung Cancer?

210 referrals to a chest clinic we diagnosed with lung cancer, cases. Of these 136 were men 74 were women.

Control group = blood donors. Smoking history and age matched.

Cpn detected by antibodies in blood [usually a sign of chronic infection] and by swab polymerase chain reaction. [Throat specimens have low sensitivity (Cpn lives and breeds intra-cellularly)]

Current or historic smoking did not affect presence or absence of Cpn. [If an association between Cpn and lung cancer is found; smoking history would not confound it].

57% of male LC cases were infected vs. 27% of 70 year olds in general and 17% of blood donors. The difference is statistically significant.

34% female LC vs. 29% 70 yr olds and 23% donors. Not statistically significant.

Younger male cases did not have sig. diff. infection rate.

#### Comment

Other studies have shown smoking is a risk factor for infection. Inconsistency possibly due to differences in study design. If smoking were the cause of significant risk of infection it may be that smoking would still be considered the material cause. Some doubt about this remains.

Causal direction or coincidence is not clear. It may be that lung cancer predisposes to infection it may be the reverse or, the association in men may be coincidence. A prospective study would sort this out.

The strong association between LC and Cpn infection in men deserves further study.

