

Prevalence and risk factors of latex sensitisation among Sri Lankan health care workers to natural rubber latex gloves

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Allergy to latex proteins is now acknowledged as a major occupational hazard among glove-using health care workers (HCW). There is no data on prevalence of latex allergy in Sri Lanka. This study consisted of a questionnaire based survey among Sri Lankan HCW. Project sites were selected to represent an island wide cross section of Sri Lankan HCW including all bio-climatic zones of Sri Lanka except North and East provinces. An introductory leaflet and two questionnaires were prepared and distributed among 6000 HCW. Data (n=3526) were analysed using the SAS package and MINITAB 11 version. Binary Regression model was fitted to the most significantly correlated associations.

Results of this study provide information on Latex Allergy (LA) and Contact Glove Dermatitis (CGD) among Sri Lankan HCW. According to the results of the questionnaire survey, out of 3526 respondents, the prevalence of CGD was 13% whereas 5% met the criteria for LA. Compared to previous studies elsewhere in the world prevalence of LA and CGD in the present study was low.

Factors such as Atopy {Odds Ratio (OR)=12/ p<0.000 for LA and OR=6/p<0.000 for CGD}, gender (females-OR=2/p<0.000), longer duration of glove use on daily basis (More than 6 hours - OR=3/p<0.000), drug allergy (OR=2/p<0.000), different sections of hospitals (p<0.015 for LA and p<0.001 for CGD), presence of wheezing/asthma (p<0.001), hay fever (p<0.001), food allergy (p<0.001), eczema (p<0.001), soap allergy (p<0.001), dust allergy (p<0.001) and photosensitivity (p<0.001) appear to be contributing risk factors of developing LA and CGD in HCW of Sri Lanka. Furthermore there was a relationship between HCW who use gloves frequently (p<0.001) and job category (p<0.002) of HCW only with CGD. It is necessary to confirm the prevalence of LA by doing an evaluation test of IgE mediated hypersensitivity such as SPT or *in-vitro* assay of specific IgE antibodies to the latex allergens with the help of latex allergic individuals listed in the data base of this study.

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