Reviewer's report

Title: Comparison of specific IgG against plastic resin in workers with and without chemical dermatitis.

Version: 2 Date: 22 March 2015

Reviewer: Ajay P Nayak

Reviewer's report:

The article titled "Comparison of specific IgG against plastic resin in workers with and without chemical dermatitis" describes prevalence of specific IgG to product X and its components.

Major compulsory revisions

1. One of the major issues with the manuscript is that the findings are not necessarily consistent with the derived conclusions. The authors suggest that chemical-specific IgG is a useful marker for chemicals inducing allergy, however the authors demonstrate a significant problem with specificity of the IgG reactivity to product X or its components.

2. The components of Product X appear to be mostly proprietary. This is reflected in the lack of immunoreactivity towards the components of product X. It is not clear how 'synergism' is going to work in vivo, but it is more likely that these components may interact with each other to produce neo-antigens. This aspect needs to be addressed.

3. The case information needs to be moved to the beginning of the Methods section. The authors need to provide additional details for the methods used for measurement of various immunological parameters.

4. The two separate populations do not show any major differences in immunological parameters are sensitization profile to various allergens.

Minor essential revisions

1. The authors present a background cataloguing all the potential sensitizers identified in the field, but this information has very little to do with the nature of the specific problem presented here. One suggestion is to discuss the literature to epoxy sensitization and address component-specific parameters.

2. What was the total concentration of the protein loaded on the NC membrane? Define NC.

3. Correct "dermatophagoides farina: to "Dermatophagoides farinae".

4. Provide valid references for role of path test in "exaggerating" dermatitis reactions.
Discretionary revisions

1. Check for spelling errors everywhere in the manuscript.

**Level of interest:** An article of limited interest

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests