

## Topical immunotherapy with dinitrochlorobenzene: Safety concerns

Sir,

We read with ardent interest the letter to the editor by Mohan *et al.* in a recent issue of IJDVL.<sup>[1]</sup> However, we would like to express our strong reservations about the usage of dinitrochlorobenzene (DNCB) despite its observed efficacy in view of the safety issues associated with it.

As established beyond doubt several years ago, DNCB is an inherently mutagenic compound.<sup>[2]</sup> Its mutagenicity was demonstrated at all concentrations in the Salmonella typhimurium plate assay.<sup>[3,4]</sup> The assay is an invaluable screening test with a high qualitative correlation (90%) between mutagenesis and carcinogenesis.<sup>[3]</sup>

In addition, DNCB depletes the activity of glutathione S transferase in rat skin, blocking an important detoxification system of mammalian cells,<sup>[5]</sup> and is found to be genotoxic by sister chromatid exchange in human skin fibroblasts.<sup>[6]</sup> Moreover, DNCB has a significant systemic absorption.<sup>[7]</sup>

All the significant trials concerning DNCB have been performed before the year 1990 and there has been a steady decline in enthusiasm and publications on the use of DNCB in benign disorders of the skin after the discovery of its mutagenic potential. Therefore, in view of the possible risks involved with DNCB and the availability of newer alternative potent contact allergens, the use of DNCB to treat benign skin diseases is to be abandoned until proper carcinogenicity tests are conducted and the question of its hazard is resolved.<sup>[8]</sup>

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