large nerve fibers is also seen\cite{9}. Skin biopsy could be suggested as a second line confirmatory exam for CIPA.

It should be noted that rule out of the common disorders by the strongest possible evidences should be considered as the first step in diagnosis. Although the clinical manifestations of the presented cases are compatible with CIPA, having a confirmatory paraclinic data is also needed, especially because of lack of suggestive family history and rare prevalence of this syndrome. For definite diagnosis of CIPA, genetic analysis of the NTRK gene, as the most powerful confirmatory laboratory test, could be recommended in suspicious cases.

References

On the other hand, PTSD and other psychiatric disorders are common in CWVs[4] and also previous reports demonstrated the association between parental psychiatry distress and offspring asthma[5]. It is needed to consider the CWV’s psychological status before assessing their children for stress related disorders.

Although there are evidences about the relationship between chemical warfare contact and genomic mutation of multi-potential cells such as spermatogonia[6], report about the offspring’s somatic anomaly in parental SM exposure is so limited[7].

Nevertheless, one conflicting evidence that may question the effects of MG on victims’ offspring is the different manifestation in victims and their children which in the mentioned study was considered as asthma. The clinical manifestation of MG lung injury in majority of exposed patients is Bronchiolitis obliterans (BO)[8]. The mechanism of BO is related to the chronic inflammation due to deficiency of antioxidants but the well defined mechanism for asthma is immune system imbalance[9].

Also, few studies have pointed to cellular/molecular similarities between these two disorders (MG lung injury and asthma)[10]. Recently, the role of glutathione as an antioxidant and therefore its related enzymes such as glutathione S-transferase was discussed in asthma similar to MG lung injury[9,11]. On the other hand, the significant role of interleukin-5 and eosinophils (an effective cytokine and immune cell in asthma) in the long term complication of chemical lung injury was identified[12].

The pure impacts of MG regardless concomitant complication must be evaluated in further investigations to confirm its effect on the genome of offspring due to victim’s genome mutation in reproductive germ cells. It seems that there are several queries to charge MG as a guilty of victims’ offspring sequels. Future investigation should be focused on the genomic evaluation of victim’s reproductive germ cells and its relation with offspring disorders regarding the role of gender[13] and also duration of exposure[14] for adjusting these confounders.

**Key words:** Sulfur Mustard; Mustard Gas; Asthma

**References**


