

ADJUVANT INDUCED AUTOIMMUNE / AUTOINFLAMMATORY SYNDROME (ASIA) IN PATIENTS WITH MYASTHENIA GRAVIS AFTER VACCINATION AGAINST HUMAN PAPILLOMA VIRUS (HPV)

Ana Claudia da Cunha Ferreira

<http://lattes.cnpq.br/3274122780609311>

Siane Prado Lima Souza

<http://lattes.cnpq.br/0076457142110723>

Satiko Andrezza Ferreira Takano

<http://lattes.cnpq.br/3173362005050319>

Maria de Lourdes de Souza Galvão

<http://lattes.cnpq.br/3646004887994305>

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Presentation of four patients with clinical, laboratory and electromyography of Myasthenia gravis, evolving after vaccination against human papillomavirus (HPV) with signs and symptoms compatible with ASIA. Patients aged 18 to 15 years, female, were stable from myasthenic to HPV vaccine. Thereafter, they evolved after an interval of, on average, two weeks to one year, with generalized weakness, myalgia, arthralgia, chronic fatigue, and depressive disorder. Two took the vaccine quadrivalent and one the bivalent, one does not know which type. After presenting the symptoms, difficult management related to Severe Chronic Fatigue Syndrome, not being responsive to drug treatment. After performing several diagnostic tests with other autoimmune diseases, research of heavy metals, infectious. The diagnosis of ASIA was given, since the patients present criteria for the syndrome. Treatment is followed up, treatment of underlying disease and treatment of the already related symptoms.

ASIA is a syndrome that encompasses

several immunological changes such as: silicosis, Gulf War Syndrome, Macrophagic Myofasciitis, sick building, and post-vaccine phenomena.

The patients from the stimulus of adjuvants present in the vaccines, mainly aluminum, evolve with signs and symptoms suggestive of the syndrome. Aluminum, present in the anti-HPV vaccine, stimulates the immune system in a chronic way and, in a genetically susceptible patient, leads to typical manifestations such as myalgia, myositis, fatigue, cognitive deficits, autoantibodies or antibodies against the suspected adjuvant, presence of HLA and other specific autoimmune disease, in this case severe myasthenia.

Vaccines are essential to maintain the health of the population, the importance is unquestionable. However, through these cases, we showed the need for evaluation of patients who, after the vaccine stimulus, evolved with a compatible picture to a chronic stimulus to the immune system, leading to often disabling symptoms.

REFERENCES

- Shoenfeld Y, Agmon-Levin N. 'ASIA' - autoimmune/inflammatory syndrome induced by adjuvants. *Journal of autoimmunity*. 2011;36(1):4-8.
- Koppang EO, Bjerkas I, Haugarvoll E, Chan EK, Szabo NJ, Ono N, et al. Vaccination-induced systemic autoimmunity in farmed Atlantic salmon. *Journal of immunology*. 2008;181(7):4807-14.
- Harper DM, Irons BB, Alexander NM, Comes JC, Smith MS, Heutinck MA, et al. Quantifying the decisional satisfaction to accept or reject the Human Papillomavirus (HPV) vaccine: a preference for cervical cancer prevention. *PLoS One*. 2014; 9(2):e88493. doi:10.1371/journal.pone.0088493.
- Ulanova M, Tarkowski A, Hahn-Zoric M, Hanson LA. The common vaccine adjuvant aluminum hydroxide up-regulates accessory properties of human monocytes via an interleukin-4-dependent mechanism. *Infect Immun* 2001;69:1151e9.