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### Quantification of Cl and Na in the antigen used for the production of serum antilonomic

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**Introduction:** The *Lonomia obliqua* is a caterpillar of importance in public health, with wide geographic distribution in the regions of South, Southeast of Brazil and some countries of South America. The Butantan Institute is the only producer of antilonomic serum. Caterpillars are from collaboration with the Health Departments of State and Paraná, Santa Catarina and Rio Grande do Sul. Horses are immunized with a pool of extracts obtained from caterpillar bristle and there is no comparison to evaluate the variability of the extracts obtained from these different regions, not even a standard extract of *L. obliqua* bristles. The efficacy and safety of antivenom immunotherapy is closely related to process control, it is desirable to establish techniques that are reproducible, traceable, at low cost and qualifying.

**Objective:** Standardize the antigen obtained from different regions of origin, mainly considering the concentrations of Na and Cl in its composition, using Neutron Activation Analyses technique (NAA). **Method:** The samples were obtained from lots of extracts produced caterpillars consignments of sending from the states of Paraná, Santa Catarina and Rio Grande do Sul. At this early stage were analyzed some samples of PR (21 samples), SC (09) and RS (08). ~50µL of solution (extract) was transferred to the filter paper. The NAA measurements were performed in the IEA-R1 nuclear reactor (IPEN/CNEN-SP, Brasil). Each sample was irradiated by 120s and gamma counting by 300s using HPGe detector (ORTEC-GEM 60195) coupled to a MCA (ORTEC - 919E). The elements concentrations were obtained using the ATIVAÇÃO software. **Results:** The elements Cl and Na were identified as majorities. The presence of Ca, Fe and S were also observed but in small concentration; As and Cr are lower of detection limit.

**Discussion:** The Cl and Na concentration were in the same range for all regions. These data can be used to standardize a specific antilonomic serum for caterpillars (*L. obliqua*) coming from different regions of Brazil.

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