Reviewer's report

**Title:** Bilateral brachial plexus injury following acute carbon monoxide poisoning

**Version:** 2  **Date:** 1 February 2013

**Reviewer:** Antonio Garcia

**Reviewer’s report:**

Mayor Compulsory Revisions

1) Authors should include the results of the second electrophysiological study (in the text or in the Table). Which muscles were sampled by needle electromyography? Which muscles were employed to record the compound muscle action potentials after the nerve stimulation? Specify the name of the muscles, e.g. abductor pollicis brevis (APB) muscle. Was the brachial plexus stimulated? Which sensory nerve segments were studied by electroneurography? (for example, finger 5-wrist).

2) In my opinion, it might be helpful to specify if all the muscles of the upper limbs were clinically affected by the same way.

3) Discussion must be shortened. It would be helpful to focus the discussion on the interpretation of the results and about the pathophysiology of the plexus damage in the described case.

4) The authors wrote in the Conclusion: “The pathological finding is demyelinating and the prognosis is excellent”. However, in the Case Report authors wrote “ENMG pattern was compatible with the diagnosis of bilateral C5-D1 brachial axonal plexus injury…” In my opinion, a demyelinating damage of the brachial plexus do not explain the absence of the distal sensory nerve action potential of both ulnar nerves. In addition, the reduction of compound muscle action potentials of hand muscles after distal stimulation, and the normal F wave latency results must be explained.

Minor Essential Revisions

1) There are some mistakes in the use of terms: Hyposthesia… hypoesthesia; 42 years old man… 42-year-old man; “motor amplitud” instead of “compound muscle action potential (CMAP)”; “sensitive amplitudes” instead of “sensory nerve action potential (SNAP) amplitudes”; Claude is the first author… Claude (1) was the first author;

2) Any abbreviation employed should be previously described using full terms: e.g. Cerebral MRI (Magnetic resonance imaging), Needle electromyography… Needle electromyography (EMG).

3) Table: Write the results of the first and second electrophysiological studies by using heading terms like: Distal motor latency or DML; compound muscle action
potential amplitude or CMAP amplitude; sensory nerve action potential amplitude or SNAP amplitude. Show the referential values.

**Level of interest:** An article whose findings are important to those with closely related research interests

**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'