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### A case of Fuzi herbal poisoning presenting with paraplegia

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**Objective:** Fuzi, a processed lateral root of *Aconitum carmichaelii*, is a commonly used “hot” herb in traditional Chinese medicine for a variety of ailments (i.e., nausea, vomiting, viral illnesses, and musculoskeletal disorders). Fuzi is known to be poisonous because it contains aconitine and other aconitum alkaloids, which can lead to cardiotoxicity and neurotoxicity. To reduce the toxic alkaloid content, Fuzi is used only after soaking and boiling during processing or preparation of decoction. Poisoning cases however still occur in some Asian countries, such as Taiwan and Hong Kong. Toxic effects of aconitine and related alkaloids typically occur within minutes to hours after ingestion and may affect cardiovascular, gastrointestinal, and neurological systems. Although limb numbness or even paralysis has been reported following aconitine poisoning, paraplegia has not been previously reported following Fuzi poisoning.

**Case report:** A 35-year-old female suffered gastroenteritis and took a Chinese herbal decoction containing Fuzi and 4 other herbs that were provided by one of her friends. After consuming the second dose of the decoction that was prepared by reheating the leftover from the previous night, she experienced numbness of tongue, perioral area and face, which spread to four limbs 30 minutes later. Dizziness and palpitation were also noted, followed by unsteady gait and paraplegia after two hours. She visited a local hospital for help and was hospitalized for five days without much improvement. She was then transferred to the Taipei Veterans General Hospital for further management. Serial neurological studies such as nerve conduction study/ electromyography, repetitive stimulation test of lower limbs, transcranial magnetic stimulation, and brain computerized tomography suggested the diagnosis of Fuzi poisoning related neurotoxicity, vestibular hypofunction and/or myopathy. Urine aconitine concentration however was not measured given the prolonged time elapsed after the exposure. After receiving supportive treatment and frequent rehabilitation, most of her manifestations markedly improved, yet paraplegia persisted. When she was last seen 15 months post-exposure, she still suffered moderate lower limb weakness.

**Conclusion:** There was no previous report of Fuzi related paraplegia. It’s also unclear whether reheating a leftover decoction containing Fuzi may increase the toxicity of aconitine or not. While it is interesting to further study the change in toxicity after reheating Fuzi-containing decoction, more education of the appropriate use of Fuzi is of utmost importance in preventing similar poisoning cases in the future.