Identification and partial molecular characterization of Iranian isolate of Australian grapevine viroid

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Australian grapevine viroid (AGVd) is a member of the genus *Apscaviroid* (*Pospiviroidae*) with restricted host range and distribution. For identification of this viroid in Iran, sap was extracted from grapevine leaves in 95 mM phosphate buffer, clarified by addition of SDS and potassium acetate, and treated with sodium acetate and isopropanol to isolate the nucleic acid. The latter was subjected to RT-PCR using AGVd specific primers reported by Wan Chow Wah & Symons (1997). PCR products were cloned and sequenced. The results confirmed infection of grapevines with AGVd in mixed infection with GYSVds and HSVd. Single infection with AGVd was rare. AGVd had no visible symptoms on grapevine but produced stunting, leaf deformation and faint mottling in cucumber and tomato. Top necrosis was not observed. Iranian isolate of AGVd was composed of 371 bases, two bases more than the type strain. It has 98 percent homology with sequences deposited in GenBank and closely related to Chinese isolate. Presence of extra nucleotides cause changes in secondary structure of Iranian isolate especially in the terminal left and pathogenicity domains. In other part of genome, Iranian isolate was identical to type strain except in U211A.