Purpose: There are about 40 reported cases of open-angle glaucoma secondary to elevated episcleral venous pressure without an underlying cause. We report a case in Mexican population. Methods: Case report. Results: A 60-year-old asymptomatic female previously diagnosed as primary-angle-closure glaucoma (PACG) with a history of iridoplasty and trabeculectomy of left eye (OS) attended our institute for clinical evaluation at Glaucoma Department. Initial best corrected visual acuity (BCVA) was 20/20 on right eye (OD) and 20/50 OS. Intraocular pressure was 20 mm Hg for both eyes. Anterior segment biomicroscopy of OD showed iris atrophy, iridotomy and cataract whereas OS had a cystic nasal bleb, episcleral dilated vessels, a nasal iridectomy and cataract. Indirect gonioscopy showed open-angles and blood in Schlemm’s canal in 360-degrees of both eyes. The evaluation of the optic nerve revealed an optic disc with 0.3 cup in OD and 0.9 cupping in OS. Visual field was normal for OD and severely depressed in OS. Optic nerve tomography showed nerve and ganglionar cell damage in both eyes. Ancillary test were made due to previously described clinical findings: thyroid function tests, doppler ultrasonography, computed tomography head and orbit scan. All were negative so the exclusion diagnosis of idiopathic episcleral venous pressure with secondary open-angle glaucoma (Radius-Maumenee syndrome) was made. Conclusions: Radius-Maumenee syndrome is a rare cause of secondary open-angle glaucoma. Diagnosis requires exclusion of entities that raise episcleral venous pressure and its management is still a challenge, since there is not enough experience nor evidence. Financial Disclosure: No