Journal of Clinical & Experimental Cardiology

Fredj Ismail et al., J Clin Exp Cardiolog 2012, 3:6
DOI: 10.4172/2155-9880.1000197

Case Report Open Access

Vogt-Koyanagi-Harada Syndrome Associated to Hypothyroidism Revealed by Myocarditis

F Ben Fredj Ismail*, A Mzabi, M Karmani, A Rezgui, H Mhiri and C Laouani-Kechrid

Department of Internal Medicine, Sahloul Hospital, Sousse, Tunisia

Abstract

Purpose: Vogt-Koyanagi-Harada (VKH) syndrome is usually defined as an uveo-meningitis with or without auditory and cutaneous signs. Association of VKH syndrome and autoimmune thyroiditis is uncommon.

Observation: A 28-year-old man was admitted with thoracic pain due to myocarditis. Two years ago he was treated by corticosteroids and immunosuppressive for VKH syndrome with specific ocular manifestation and deafness. Etiologic investigation of myocarditis concluded to deep hypothyroidism related to Hashimoto thyroiditis. The patient improved after substitutive treatment by thyroid hormones.

Conclusion: Thyroid function should be systematically investigated in case of VKH syndrome and particularly when associated to dysthyroidism symptoms.

Keywords: Vogt-Koyanagi-Harada (VKH); Myocarditis; Hypothyroidism; Hashimoto thyroiditis

Introduction

Vogt-Koyanagi-Harada (VKH) Syndrome is usually defined as an uveo-meningitis with or without auditory and cutaneous signs. It primarily affects Asiatic people but also African and Caucasian ones. It would be associated with certain HLA class II antigens. Its pathogenesis is autoimmune; however, its association with other autoimmune diseases such as Hashimoto's thyroiditis is rare.

Aim

We report a new case with this original rare association on the one hand and the revelation of thyroiditis by myocarditis on another hand.

Observation

A North African man of 28 years old was admitted for acute chest pain preceded by a physical asthenia lasting for one month. Two years earlier he had presented a VKH syndrome whose diagnosis was retained because of a bilateral granulomatous uveitis with retinal detachment, retinal ischemia and areas of sensorineural hearing loss. The patient received high-dose steroid therapy and six courses of cyclophosphamide monthly and had unexpectedly stopped his treatment. Physical examination on admission was a discrete motor weakness of the pelvic girdle and reduced tendon reflexes. Pulmonary auscultation was normal and heart rate was at 120 b/mn. The electrocardiogram showed tachycardia and signs of subepicardial ischemia in the apical-lateral territory. The biological test noted an increase in Creatine Phosphokinase (CPK) to 2290 IU / l and Lactate Dehydrogenase (LDH) to 910 IU / l; troponin, triglycerides, total cholesterol, blood counts were normal, CRP was 32 mg/l and sedimentation rate 50 (H1). Echocardiography noted diffuse hypokinesis of the left ventricle contrasting with persistence of impaired ejection fraction or other cardiac abnormalities. Myocardial scintigraphy showed a diffuse hypo perfusion stress. As part of this etiological and myocardial muscle, a thyroid showed peripheral hypothyroidism (TSH>100 mIU / l and T4 0.1 ng/dl). The anti-peroxidases were present at high titer. No signs of adrenal insufficiency were noted and the cortisol was normal. The patient was then treated with substitutive thyroid hormone plus captopril established for myocarditis. Its evolution was favorable with clinical improvement and normalization of laboratory tests. Control echocardiography was normal. Ophthalmologic examination had found control of VKH disease in remission, not requiring the resumption of steroid therapy. MRI couldn't be done because of its non disponibility.

Discussion

VKH syndrome usually affects young adults between 30 and 40 years with a female predominance [1,2]. Its clinical manifestations are various, and are classified into different phases. A phase of meningitis can occur with headache, meningeal irritation, seizures, neurological deficit, hearing loss and psychiatric signs. Second phase is characterized by ophthalmic pain and decreased visual acuity with anterior uveitis, granulomatous or not, associated with serous retinal detachment and papillitis. Involvement is bilateral in almost all cases and can be asymmetrical. This phase can last from several months to several years. The most common complications are cataract and glaucoma with risk of blindness [1]. The convalescent phase is marked by a diffuse depigmentation of the fundus and the uveitis. The pathogenesis of this syndrome is still little known; an autoimmune mechanism is supported by the presence of T CD4+ cells reactive to certain proteins of melanocytes in the blood, cerebrospinal fluid, the choroid and the skin of patients with active disease [3]. A particular genetic predisposition, HLA-DRB1*0405, appears to predispose to this condition.

The association of VKH syndrome with an autoimmune disease of organs, especially of the thyroid is rare, isolated cases have been reported in the literature. This was mainly Hashimoto's disease [4-8], more rarely with Graves' disease [9] or polyglandular syndrome [10]. The pathogenesis of Hashimoto's thyroiditis appears to involve humoral immunity as evidenced by the presence of anti-thyroid, but

***Corresponding author:** Dr. Fatma Ben Fredj Ismail, Department of Internal Medicine, Sahloul Hospital, Sousse, Tunisia, Tel: 21698504387; E-mail: bfi.fatma@yahoo.fr

Received April 06, 2012; **Accepted** May 25, 2012; **Published** May 28, 2012

Citation: Fredj Ismail FB, A Mzabi, M Karmani, A Rezgui, H Mhiri, et al. (2012) Vogt-Koyanagi-Harada Syndrome Associated to Hypothyroidism Revealed by Myocarditis. J Clin Exp Cardiolog 3:197. doi:10.4172/2155-9880.1000197

also cellular immunity. Indeed, they are clones of T CD4+ cells specific for certain antigens (thyroglobulin and microsomal antigen major or TPO) that appear to play an important role in the destruction of thyroid epithelial cells. Abnormalities of immune regulation have also been observed with a decrease in circulating T CD8 + cells with suppressive function [11]. A genetic susceptibility characterized by different alleles, including HLA-DR3 in particular, has been associated with Hashimoto's disease. Pathophysiological similarities exist therefore between these two autoimmune diseases; their association in the same patient would not be a coincidence. The second peculiarity of the case reported in this work is the mode of presentation of hypothyroidism. Indeed, the non-ischemic myocardial injury is rare in hypothyroidism which accompanies most of pericarditis [12]. This achievement, in type of hypo kinesis septal or dilated cardiomyopathy, is caused by reversible myocardial functional impairment. In Hashimoto's thyroiditis, lymphocytic myocarditis of probable autoimmune origin was reported in an autopsy study [13]. Treatment of VKH syndrome is based on steroids and immunosuppressors and treatment of hypothyroidism is done by substitutive thyroid hormone. Captopril establishes myocarditis; when due to hypothyroidism, it is also reversible when hormonal disorder is early corrected [1,7,11,13].

Conclusion

VKH syndrome is a systemic disease rare, autoimmune origin can be associated with other autoimmune diseases of organs such as Hashimoto's thyroiditis. This is to systematically seek to establish an early diagnosis and appropriate treatment.

References

1. Guenoun JM, Parc C, Dhote R, Brezin AP (2004) Le syndrome de Vogt-Koyanagi-Harada: aspects cliniques, traitement et suivi à long terme dans une population caucasienne et africaine. J Fr Ophtalmol 27: 1013-1016.
2. Alaoui FZ, Benamour S, El Kabli H, Amraoui A (2007) Syndrome de Vogt-Koyanagi-Harada. A propos de huit cas. Rev Med Interne 28: 250-254.
3. Damico FM, Silva GC, Bezerra FT, Gasparin F, Yamamoto JH (2009) New insights into Vogt-Koyanagi-Harada disease. Arq Bras Ophtalmol 72: 413-420.
4. Wiesli P, Bernauer W, Furrer J (1999) Headache and bilateral visual loss in a young hypothyroid Indian man. J Endocrinol Invest 22: 141-143.
5. Jaggarao N, Voth D, Jacobsen J (1989) The Vogt-Koyanagi-Harada syndrome: association with hypothyroidism and diabetes mellitus. Postgrad Med J 65: 587-588.
6. Kluger N, Mura F, Guillot B, Bessis D (2008) Vogt-Koyanagi-Harada syndrome Associated with Psoriasis and Autoimmune Thyroid Disease. Acta Derm Venereol 88: 397-398.
7. Chi HI, Furue M, Ishibashi Y (1994) Vogt-Koyanagi-Harada's syndrome associated with Hashimoto's thyroiditis. J Dermatol 21: 683–686.
8. Paroli MP, Pinca M, Speranza S, Marino M, Pivetti-Pezzi P (2003) Paracentral corneal melting in a patient with Vogt-Koyanagi-Harada's syndrome, psoriasis, and Hashimoto's thyroiditis. Ocul Immunol Inflamm 11: 309–313.
9. Seo JH, Yu HG, Chung H (2009) A case of Vogt-Koyanagi-Harada disease in a patient with Graves disease. Korean J Ophtalmol 23: 112-113.
10. Jovic NS, Nesovic M, Vranjesevic DN, Ciric J, Marinkovic DM, et al. (1996) The Vogt-Koyanagi-Harada syndrome: association with autoimmune polyglandular syndrome type 1. Postgrad Med J 72: 495–497.
11. Duron F, Dubosclard E, Ballot E, Johanet C (2004) Thyroidites. EMC Endocrinologie 3-18.
12. Guillevin L, Scheuble C, Attali JR, Modigliani E, Sebaoun J (1981) Etude échocardiographique des hypothyroïdies. Rev Med Interne 2: 187-194.
13. Lorin De La Grandmaison G, Izembart M, Fornes P, Paraire F (2003) Myocarditis associated with Hashimoto's disease: a case report. Int J Legal Med 117: 361-364.