Means Syndrome or Ophthalmopathy Associated With Thyroid Disease (Case Report)

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Running title: Means Syndrome

Abstract

The Syndrome de Means is a clinical entity that represents a form of thyroid-related ophthalmopathy characterized by the dissociation between orbital involvement and thyroid disease expression. It is defined as a type of thyroid ophthalmopathy that does not exhibit any clinical or biological signs of thyroid dysfunction. This syndrome accounts for 8% to 21% of cases of ophthalmopathy associated with thyroid diseases, emphasizing the evolutionary dissociation between orbital pathology and the subsequent clinical and/or biological expression of thyroid disease . We report the case of a38-year-old male patient with no previous medical history presented with bilateral exophthalmos, ptosis and diplopia with limited ocular motility that had been present for 8 months. Ophthalmologic examination revealed corrected visual acuity was 7/10 (right eye) , 8/10 (left eye), and he had bilateral, axial, non-pulsatile exophthalmos that was reducible and not very painful, with limited ocular motility in all 9 visual positions , The rest of the ophthalmologic examination, including the fundus, was normal . The patient was clinically euthyroid, with no goitre on neck examination and no signs of inflammation. Thyroid function tests were ordered (TSH 0.55 mUI/L, free T4 18.56, Anti-TPO 41.3 UI/ml).An MRI of the orbit was ordered, which showed stage II exophthalmos in the right eye and stage I in the left eye, with fusiform swelling of the right orbital muscles and the right outer muscle of the left orbit .The patient received an injectable corticosteroid for 3 days, which resulted in a slight clinical improvement.

Keywords: Exophthalmos; Diplopia; Thyroid ophthalmopathy, Graves' disease.

Introduction

Means syndrome is defined as a form of thyroid ophthalmopathy without clinical or biological signs of dysthyroidism. It reflects the evolutionary dissociation between orbitopathy and thyreopathy after at least 1 year. Delayed diagnosis is common.

Case,Report

A 38-year-old male patient with no previous medical history presented with bilateral exophthalmos, ptosis and diplopia with limited ocular motility that had been present for 4 months.

On examination, his visual acuity was 7/10 (right eye) and 8/10 (left eye), and he had bilateral, axial, non-pulsatile exophthalmos that was reducible and not very painful, with limited ocular motility in all 9 visual positions [Figure 1]. The rest of the ophthalmologic examination, including the fundus, was normal [Figure 2]. The patient was clinically euthyroid, with no goitre on neck examination and no signs of inflammation. Thyroid function tests were ordered (TSH 0.55 mUI/L, free T4 18.56, Anti-TPO 41.3 UI/ml).

An MRI of the orbit was ordered, which showed stage II exophthalmos in the right eye and stage I in the left eye, with fusiform swelling of the right orbital muscles and the right outer muscle of the left orbit[Figure 3]. The patient received an injectable corticosteroid for 3 days, which resulted in a slight clinical improvement.

Clinical and biological monitoring is performed regularly to detect the appearance of stigmata of graves' disease.

Discussion

Means syndrome presents clinically as Basedow-Graves ophthalmopathy or as ophthalmopathy associated with thyroid disease. It is associated with autoimmune abnormalities without clinical or biological thyroid disease [1].The usual clinical presentation, which is confusing to those unfamiliar with it, is that of the ocular manifestations of Graves' disease, with the picture being more or less complete. Symptoms range from functional (corneal irritation, pain, diplopia) to physical (palpebral edema, palpebral retraction, oculopalpebralasynergy). These signs are usually unilateral or at least asymmetrical.[2].

Imaging using CT or MRI helps with the diagnosis, especially to rule out tumorous causes. Progression to dysthyroidism is rare [3].The progression of dysthyroidism is rare, but regular monitoring is necessary to detect it. The treatment is only justified in cases of severe disease and should be discussed on a case-by-case basis, as spontaneous regression may occur. Treatment options include general corticosteroid therapy, radiotherapy [4] and surgery to treat sequelae. Other therapies have also been proposed (cyclosporine, somatostatin, plasmapheresis, polyvalent immunoglobulins), but these are still insignificant and are currently being evaluated [5]. Advances in our understanding of the pathophysiology of the ophthalmologic involvement of the disease may allow more specific treatments to be proposed.

Conclusion

Means syndrome is a clinical entity that is responsible for the dissociation between orbitopathy and thyreopathy. The diagnosis must be made promptly so that appropriate treatment can be offered in case of disability. Unfortunately, the lack of awareness of this pathology is often responsible for a significant delay in diagnosis (16 months on average) and the

after-effects have a significant impact on patients' quality of life.

References

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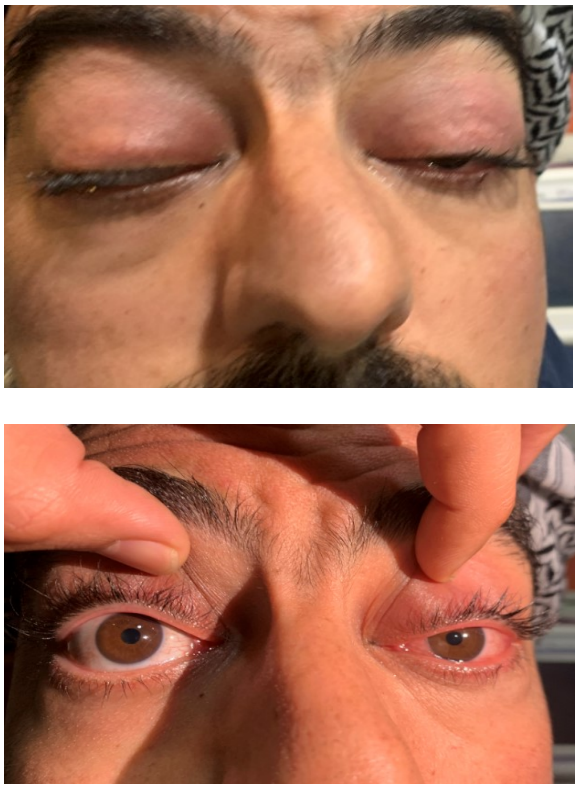

Figure 1: photo of the 2 eyes with bilateral exophthalmos with ptosis, associated with impaired ocular motility.

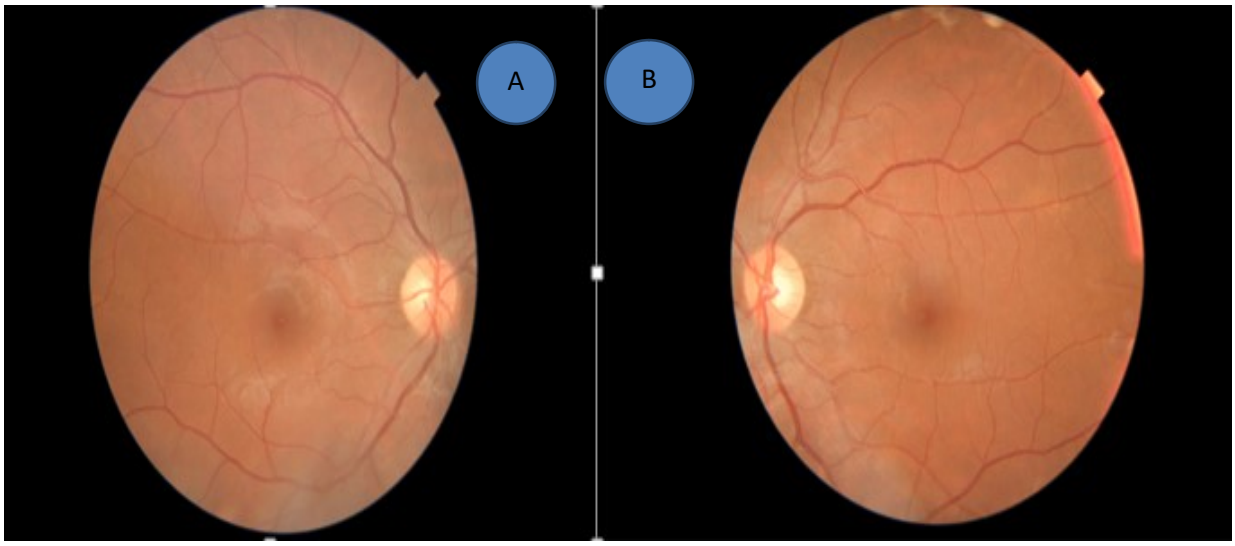

Figure 2: Retinography of both eyes with normal papilla and macula. A: right eye /B: left eye.

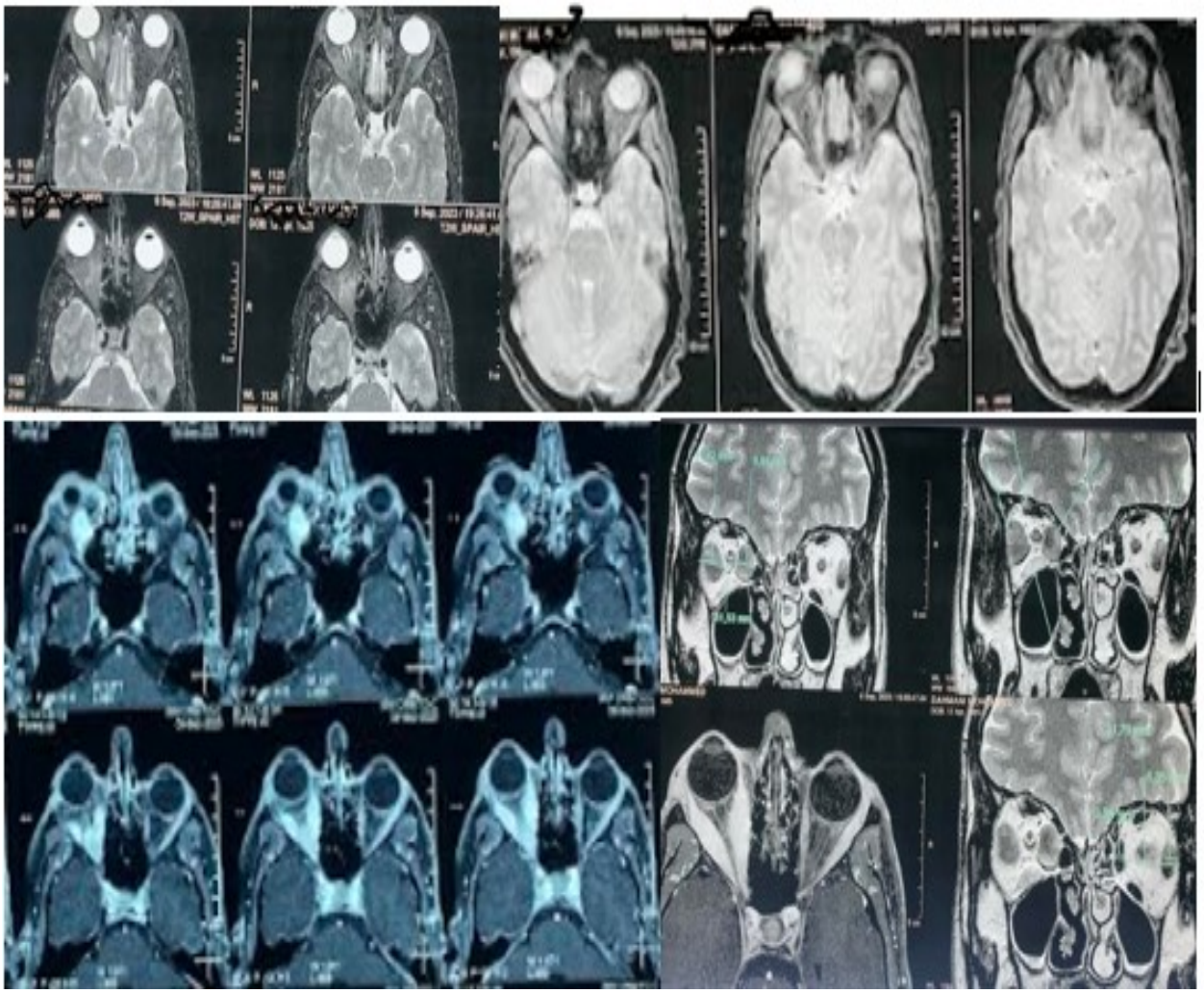

Figure 3 : MRI of the orbit was ordered, which showed stage II exophthalmos in the right eye and stage I in the left eye, with fusiform swelling of the right orbital muscles and the right outer muscle of the left orbit.