LETTERS

The current role of radiotherapy in "Bilateral exophthalmos in Grave's Disease"

Dear Editor,

Exophthalmos (also called exophthalmia or proptosis) is a bulging of the eye anteriorly out of the orbit. Although clinically unilateral Grave's ophthalmopathy occurs occasionally, orbital imaging generally confirms the presence of asymmetric bilateral disease[1]. In the case of Grave's Disease,the displacement of the eye is due to abnormal connective tissue deposition in the orbit and extra ocular muscles which can be visualized by Computed Tomography (CT) or Magnetic Resonance Imaging (MRI). If left untreated exophthalmos can cause the eyelids to fail to close during sleep leading to corneal dryness and damage.Another possible complication would be a form of redness or irritation called "superior limbic keratoconjunctivitis'', where the area above the cornea becomes inflamed as a result of increased friction when blinking. The process that is causing the displacement of the eye may also compress the optic nerve or ophthalmic artery, leading to blindness. We have recently treated a 61- years–old man with significant bilateral exophthalmos (of the right eye was more well-defined) in our Radiotherapy Oncology Department in AHEPA University Hospital, Aristotle University of Thessaloniki. The patient was with ophthalmic symptoms involving periorbital soft tissues, eyelids, oculomotor muscles and even optic nerves. He was with decreased movement range of eyeballs, increased exophthalmos, diplopia and lacrimation, (±)eyeball pain. He was treated from endocrinologist, after diagnosis (December 2007), with corticosteroid (medrol 24mg per os, 24mg/day), for 45days. After the treatment there was no improvement of the symptoms. Diagnosis of ophthalmopathy is mainly based on clinical data. The patient was treated by glucocorticosteroids (SoluMedrol®) for 7 weeks with very well results. After this, ambulatory irradiation of retro bulbar areas was performed in our department. Dimensions of the irradiation field were with in limits of 4cm x 5cm [2,3]. Planned dosage of radiation was 20Gy applied in 12Fr. The 1st fraction dose was 1 Gy and 1,73Gy/Fr during other 11 fractions (5 days a week)[2]. At the end of therapy was considered a successful result: increased movement range of eyeballs,decreased exophthalmos, decrease of diplopia and lacrimation,reduction of eyeball pain. The MRI in the orbit after three months of irradiation: showed decrease thickening of straight muscles. In our case, there were no side effects after radiation therapy (lacrimation and swelling of the eyelids, slight skin erythema). The patient was with better visual activity and regression of the diplopia.

In conclusion, the value of radiation therapy with combination of glucocorticosteroids, is the best form of ophthalmopathy treatment, in bilateral exophthalmos, in the course of Graves Disease.

References

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