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Title **Photodynamic Therapy in the Treatment of Age-related Macular Degeneration**

Agency **CAHTA, Catalan Agency for Health Technology Assessment and Research**
Travessera de les Corts, 131-159, ES-08028 Barcelona, Spain;
tel: +34 93 227 29 00, fax: +34 93 227 29 98, diraatm@catsalut.net, www.aatm.es

Reference CAHTA evaluation report. March 2002. 59 pages and 68 references. Full text available in Spanish at http://www.aatm.es/cas/informes/i.html

Aim

Scientific evidence related to the efficacy, effectiveness, and safety of photodynamic therapy in treating age-related macular degeneration was assessed. The report also addresses the clinical application of this technology in Spain and its impact at organizational, legal, and economic levels. It also describes alternative treatments and levels of scientific knowledge.

Conclusions and results

Age-associated macular degeneration (AMD) progressively damages the sensitive center of the retina (macula) and hence the center of the visual field. There are two types of disease: atrophic or dry and exudative, neovascular or wet. Exudative cases account for 10% of total AMD and affect approximately 2% of those aged above 60 years. It is characterized by a severe, progressive loss of vision, and 90% of the cases of blindness could present this neovascular form.

The scientific evidence suggests that photodynamic therapy may be efficacious and safe in patients with a classic subfoveal pattern (CNV) equal to or greater than 50% of the total surface of the lesion and secondary to AMD over the time analyzed (2 years). Evidence is insufficient to justify the systematic use of this therapy in patients with lesions of less than 50%.

Studies identified in this overview differ in terms of patient selection criteria. The first included patients with evidence of a classic pattern of choroidal neovascularization CNV secondary to AMD and with an extension of this pattern equal to or greater than 50% of the total surface of the lesion. The second included patients with occult CNV without the classic component and secondary to AMD and to pathological myopia.

Recommendations

Controlled and randomized clinical studies with a longer followup are required to confirm that the effects last more than 2 years and to determine important aspects that were not addressed, particularly on the patients' health-related quality of life.

Cost effectiveness

A cost-effectiveness study of photodynamic therapy applied to the second eye suffering from exudative AMD, but with better sight and with classical subfoveal CNV, was also identified. The results suggest that it is minimally cost effective in patients with AMD with classic subfoveal CNV in the second eye (better sight) and an initial visual acuity of 20/40. If the initial visual acuity of the second eye (in the same conditions) was worse, photodynamic therapy was not cost effective.

Methods

The bibliographic search strategy identified two controlled and randomized multicenter clinical trials (2 years of followup) and a systematic review. The methodological quality of the original studies and the scientific evidence they presented was regarded as high based on the scale for evaluating scientific evidence produced by CAHTA.

Written by Antoni Parada, CAHTA, Spain