

Macular demain branch retinal vein occlusion: early treatment using laser arteriolar constriction yiels good results

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Advantages:

Determination of prognostically unfavourable branch retinal vein occlusion (BRVO) using initial visual acuity (VA) is a very simple and valuable procedure, which can be done by the general practitioner. The laser arteriolar constriction technique could be successfully applied in cases of acute BRVO with large retinal haemorrhage.

Methods:

Only prognostically unfavourable BRVO (eyes with an initial VA of less than 20/200) were included in the study. Evaluation criteria: unsuccessful results were those with final VA inferior to 20/200. We treated 108 eyes with BRVO using our own modification of the laser arteriolar constriction technique, which consists in the application of coalescent coagulation spots through the afferent arteriole. Patients were divided into two basic groups: group A (n=66) – early treatment: photocoagulation performed within 2 months following onset of BRVO and group B (n=42) - treatment initiated later than 2 months after BRVO onset. A control group-C (n=59) consisted of eyes treated using the standard approach (grid photocoagulation) according to BRVO Study Group recommendations. For statistical evaluation Chi-square Test with Yates correction. (P: 0.05) was used.

Effectiveness:

The incidence of a final VA inferior to 20/200 was significantly lower in the early treatment group A (6%) as compared to both control group C (49%) and group B (33%). It was lower than that reported by other authors: Wetzig (67%), Jalkh (33%), Magargal (50%) and Lang (50%). In prognostically unfavourable BRVO we achieved significantly better results in eyes exposed to early treatment using the laser arteriolar constriction technique than in those where the BRVO Study Group approach was used. This treatment approach yields the best visual result found in the literature to date.

Take home message:

Prognostically unfavourable BRVO should be treated using laser arteriolar constriction technique in the early phase of the disease, as soon as possible.