What Can Be Expected from Treatment of Amblyopia ?

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Discussion.

Mrs. Kok van Alphen: How is amblyopia treatment carried out in school children? Our experience is that it is much more difficult in children who visit a primary school.

Professor Colenbrander replied: We train our patients for a short period but intensely, just before the operation, e.g., three times a day, and to this end admit the children to hospital. Three days after the operation, the training is continued. In our opinion, this gives better results than training over a long period.

Waardenburg: Is the accomplishment of binocular vision also dependent on age? I do not think it likely. Would not this be another reason to begin amblyopia treatment early?

Professor Hagedoorn was also convinced of the necessity of the earliest possible treatment and of continuous covering of the normal eye in treatment

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of amblyopia. Unsatisfactory results are often due to the tendency in children to loosen the dressing and to look past it.

Flieringa stated that according to his experience intensive training of an amblyopic eye can certainly be done every day for a limited period, e.g. 1 hour, provided that the child cooperates in the training with full attention. Care should therefore be taken that the child is interested in the exercises. This way of training is preferable to the wearing of an occlusive dressing throughout the day.

Miss Velzeboer: (1) Is the age at which strabismus develops significant for the prognosis? (2) Is the degree of amblyopia significant for the prognosis? It seems possible that the result of amblyopia treatment in a child of 8, which has squinted ever since the age of 3, differs from that in a child of 5 whose squinting started in the first year of life.

Jonkers replied to Waardenburg: In my experience, binocular vision can be accomplished at almost any age. For practice, it is important to know that complete examination of binocular vision does not give reliable results before the child is 7 to 8 years old. This is one of the reasons why I am rather reserved in respect of findings in a younger child. The reliability of the results of examination and, consequently, the success of treatment is greater as age is higher, if other factors, such as intelligence, are equal. With monocular vision it is different. Even in very young children, a very good impression of the condition and development of monocular visual acuity can be obtained. Statistical analysis shows that, as regards the prognosis of the final visual acuity, it is irrelevant when the amblyopia treatment begins, but another aspect should be considered during treatment, viz., the prognosis of recovery of the binocular function. This

prognosis is not too good when an abnormal binding is imminent or has developed. For this reason I prefer to begin amblyopia treatment as early as possible and, when the visual acuity of both eyes has become equal, to continue with alternating occlusion in order to prevent abnormal binding, or to avoid that it fixes too strongly;

to Hagedoorn: I quite agree with your remark;

to Flieringa: Your question has been partially answered by my reply to Waardenburg. I agree with you that by periodic, very intensive training, amblyopia is sufficiently, but a possible abnormal binding insufficiently overcome. I have never observed that abnormal binding disappeared owing to alternating occlusion, even for long periods, but I am under the impression that after such a long period, it can easier be cured orthoptically. Matters are different when there is verified so-called normal binding. In that case, short-lasting active amblyopia treatment without permanent occlusion could suffice;

to Miss Velzeboer: My studies do not provide a ready answer to the question whether the prognosis for binocular vision depends on the moment when squinting has begun.

Your second question cannot be answered off-hand either. My general opinion is that, since it has appeared from other statistical work that abnormal binding is most frequent in squinting that has begun at an early age, and since it is very difficult to overcome this abnormality, the prognosis of squinting of early onset in respect of binocular vision is less favourable than in cases in which squinting sets in later and in which there is often normal binding.