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THE EFFECT OF CONJUNCTISAN<sup>R</sup> A EYEDROPS ON CATARACTS

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Between 1969 and 1974, Conjunctisan A Eyedrops and Conjunctisan B Eyedrops<sup>\*</sup> were prescribed, and their effects in various degenerative conditions and diseases of the eye were observed systematically. The preparations were first found to have a markedly positive effect on degenerative processes in the macula lutea associated with arteriosclerosis. Rather unexpectedly, Conjunctisan-A achieved considerable improvements in the vision of young people with degenerative conditions of the cornea, as I reported at the 18th Annual Conference on Cytoplasm Therapy.

Conjunctisan A and Conjunctisan B contain carefully isolated organ components. These biologically active macromolecules have been found to have a regenerative effect on damaged tissue, including the eye. These eyedrops also contain vasoactive substances. Apart from the cases where the macula lutea was affected, improved vision was also achieved after optic neuritis and some other conditions of the optic nerve. Such results, which extend beyond spontaneous improvements in vision, have occurred repeatedly over the years, but were not sufficiently numerous to permit definite conclusions.

We therefore decided to extend the indications to senile cataract, since the course of events in cataracts is easier to assess. A certain degree of caution is, however, necessary here too. On the one hand the

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material for observation has to be sufficiently large, but on the other hand senile cataract also presents certain problems. Cataract in old people can advance rapidly at times, then extremely slowly over the years. There is sometimes stagnation and even some degree of improvement. For this reason the ophthalmologist can easily be confused in his assessment of the efficacy of drugs used in the treatment of cataract. The only help he has is long-term monitoring of pathological changes in the lens. Slitlamp findings must be recorded regularly, otherwise worsening, improvement, or standstill in the condition, and the effect of the drug, cannot be determined.

Senile cataract is a degenerative condition of the cells of the lens, causing death and degeneration of the lens fibres. Possible causes are not only disturbed metabolism in the lens itself, but dysfunction of the ciliary epithelia, which are responsible for the production of the aqueous humour, capillaries and iris. More generalised metabolic disorders, such as diabetes, may also be involved.

Many substances have been recommended for the treatment of cataract. The most recent study directed at drug treatment of this condition was fifteen years ago, when an oral sulfonamide preparation was tested, but after initial optimism no more was heard about this new therapeutic agent.

My reasons for reporting on a new type of drug treatment for cataract at the present time are twofold. Firstly, this method of biological therapy is new, and secondly I can base my report on the long period of treatment of two times 5 years - 10 years. Such an extended period of time is imperative, since senile cataract usually develops over the course of several years.

This is the basis on which the studies with Conjunctisan A Eyedrops were undertaken in selected cataract patients. The selection that was necessary was exclusion of the small number of patients with any of the many forms of congenital cataract, traumatic cataract, or opacity of the lens due to any other cause, since all of these hardly ever change and do not respond to drug treatment. Assessment was restricted to senile cataract, which is the most common form of opacity of the lens. For comparison, a number of cataract patients were also assessed who had been examined over the course of five years and were still in consultation. These patients used various other types of eyedrops or no medication at all. As was to be expected, the patients in this first five-year observation period experienced not only worsening of the cataract but also standstill of the condition, and in some cases even improvement. This only served to confirm the unique character of senile cataract and to illustrate the danger of recording therapeutic successes where none had actually occurred. To avoid the dangers of self-deception the observation period has to be sufficiently long, and the number of comparable cases sufficiently large.

Our two groups consisted of 40 patients each, selected from hundreds of cases of senile cataract, and ensuring similarity of type and severity of condition. The group not treated with Conjunctisan A was observed from 1964 to 1968, and that treated with Conjunctisan A from 1969 to 1973. There were no complications such as glaucoma, iritis, opacity of the vitreous body, or retinopathy in patients of either group. Table 1 shows the results of our studies.

Table 1 The effect of Conjunctisan A Eyedrops on cataract

	improved	worse	no change	not assessible
Test group <b>:</b> 80 eyes treated	35 eyes	16 eyes	25 eyes	4 eyes
Control group: 80 eyes not treated	6 eyes	51 eyes	18 eyes	5 eyes

Such a clear comparison brought a surprise, as it did not reflect my memory of the results, but corrected it in a positive sense. The improvements in the group treated with Conjunctisan A were found to be six times more numerous than those in the control group. The

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ratios are similar in the columns "worse" and "no change". In addition to this, the results confirmed the fact that younger patients and early diagnosis of the condition are positive contributory factors to the result of treatment with Conjunctisan A. In many of these cases, peripheral opacities disappeared completely, and in several relatively young patients in whom cataracts had been diagnosed and treated early, the condition remained stable for several years. In cases of advanced degeneration of the lens fibres, and where detritus was already discernible, no regeneration was to be expected, and none resulted from treatment. In such cases the totally opaque lens had to be removed when the time was judged to be right.

I find it particularly worthy of note that where cataract advance stopped for some long time, it was often possible to postpone cataract surgery for several years. This meant that a number of patients treated with Conjunctisan A Eyedrops did not ever have to undergo this operation, as they retained adequate sight for the rest of their lives.

## SUMMARY

The effect of Conjunctisan A Eyedrops on the course of senile cataract was observed and assessed by slitlamp examination.

Conjunctisan A is the first eyedrop preparation to use biologically active macromolecular organ preparations, including optical tissue, as a prophylactic and therapeutic regeneration principle.

The assessment criterion was worsening, standstill, or improvement in the cataract. The observation period was five years. The results of treatment with Conjunctisan A Eyedrops show a definite, positive effect compared with untreated patients. The effect was standstill or improvement of senile cataract.

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