Summary

In conclusion, I think it is wise to assume that we are, as yet, only on the threshold of this extremely interesting application of orthoptic treatment and much will be revealed as time goes on.

The most important factor to stress is the necessity of testing the accommodation both binocularly and monocularly in patients of all ages and types excluding those actually suffering from strabismus.

CONTACT LENSES IN EXCELSIS*

BY

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IN 1938 I was consulted by a young man aged 22 years, who was anxious to join the Civil Air Guard. He had been rejected on several occasions at various centres owing to the fact that he was rather highly myopic. He was extremely interested in flying, and very keen to learn, but his myopia had proved an insuperable obstacle. He was anxious to know of any form of treatment, operative or otherwise, which might overcome his difficulty; and the only possible course I had to suggest was contact lenses. He was very willing to bear the expense and to try the experiment and I accordingly placed him in touch with the contact lens centre. His visual acuity was: R.V. c—8.0 D.sph. and—1.0 D.cyl. axis $170^{\circ} = 6/6$. L.V. c—4.0 D.sph. and—2.0 D.cyl. axis $170^{\circ} = 6/5$.

I heard later that he had been successfully fitted with contact lenses and had presented himself for medical examination again, without divulging that he was wearing contact lenses, and had been passed without their presence being suspected.

I lost touch with him during the war period, but was able to establish contact with him again recently after he had been demobilised. I was anxious to learn what had transpired, and I do not think I can do better than quote his letter to me: "... Briefly I enlisted in the R.A.F. in a ground trade in February, 1940, but transferred to flying duties during the following year. I had the usual medical examination, and was posted to Canada and America for training as a pilot. My lenses were not detected either at this medical Board, or at two subsequent Boards I had in America and upon my return to England. The American Board carried out

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by American doctors, was if anything, more thorough than those conducted by R.A.F. medical officers.

"After I returned from the States I was given some operational training and then posted to a Bomber Squadron as a pilot and completed quite a number of sorties over Germany. I was flying as Captain of Halifaxes at this time. Things went well until January, 1944, when my aircraft came into contact with some ironmongery over Berlin and as a result we had to abandon the thing by parachute some time later. I was extremely lucky and managed to get into France, there joining up with the Resistance people. After a few weeks with them things got a bit hot and I had to get out of France which I did by climbing the Pyr nees and getting into Spain. After a short period there I got back to England through the good offices of the Embassy in Madrid.

"Upon my return to England I had to undergo a further medical board—this was usual after one had become a casualty, but the results were the same as before. My medical category throughout was A.1b, and eyes 6/6. 6/6. The remainder of my service was as Captain of Transport aircraft (Liberators and Dakotas), first from this country to India, N. Africa, etc., and later I was posted to Australia for similar duties. I stayed there just over a year returning to England in April last, and from then until the end of my service on 1st of January this year (1947) I was employed as a test-pilot. My medical examination revealed the same result! I had no difficulty or trouble in the air irrespective of height or manœuvres, nor has service in tropical climates caused any discomfort. I managed to avoid dust storms, or the story might have been different—dust and grit is most unpleasant!

"I had two pairs of contact lenses, and always carried a spare pair with me; fortunately I never had cause to resort to the spare pair. None of my colleagues ever had the slightest clue that I wore these things, and the methods by which I contrived to wash and clean them at night, and replace them in the morning, are rather amusing. Nevertheless I always managed to carry out the operations without a great deal of difficulty. During the day I seldom had cause to remove them. The only occasions (fortunately rare) were when I had been a bit careless in putting them in, and had got a lash under them. I usually managed to find a quiet corner to remedy this trouble.

"I wear them for up to 17 or 18 hours a day, but normally for 16 hours. On two occasions only, when circumstances pressed a bit I wore them for periods of 30 and 36 hours respectively but I must admit my eyes were a bit 'tired' after this, and were bloodshot.

"I usually go to the contact lens centre about once a year for a check—the last time I went no change of power was necessary.

I am due to go any time now, and it may be that some slight change of power will be needed, as the 6/6 line was not quite so clear with one eye as it had been on previous examination, on my last examination by the R.A.F.

"I am not altogether severing all connections with flying, and I shall join an auxiliary Air Force squadron, or do some private flying. Consequently I still desire the secret to be kept and I know you will treat the whole matter with the confidence that it needs in the circumstances. Of course I have no objection to you using my experiences, provided my name does not appear connected therewith. Incidentally, even my wife does not know about them—I was married in August last year."

(The patient omits to mention in his letter that he was decorated for "courage, determination, and devotion to duty").

It seems to me that there are certain important matters which arise out of this history.

(1) It seems clear that all the duties of an R.A.F. pilot can be carried out efficiently while wearing contact lenses. Even allowing for the fact that this may be an exceptionally successful case, and perhaps an exceptionally resolute patient, the position suggests that the visual acuity regulations for the services ought to be revised to show to what extent contact lenses will be permitted. If they give a satisfactory standard of visual acuity and can be worn for a reasonable length of time, it is difficult to see why they should not be allowed. If their use is permitted, it might permit many disappointed men who are otherwise physically fit, to have a second chance.

(2) It is manifest that contact lenses are not likely to be detected during a routine medical examination, even during one in which the estimation of visual acuity is regarded as of great importance. Ought any steps to be taken with regard to this? How far is it justifiable to aid and abet a patient in procuring contact lenses, knowing they are likely to be used to defraud a medical examiner, and how far is such a subterfuge unfair?

(3) The patient's letter demonstrates something of the future possibilities of contact lenses, both as regards their value as a visual aid and also as regards their difficulty of detection.

In conclusion, I should like to pay tribute to the courtesy and co-operation of the staff of the Contact Lens Centre, London, to whom all credit for the successful result in this case should be given.