

My Notes & Procedures

By

Lakshmi Devi, N.Z., R.N., R.M.

Ophthalmic Nursing Series (XI)

Strabismus

The "squint" met with in children is usually a concomitant squint. The visual axes instead of being parallel are inclined either inwards (convergent concomitant squint) or outwards (divergent concomitant squint). This inclination of the axes remains much the same in whatever direction the child looks.

Early and energetic treatment is required for squint. Not only is the condition a disfigurement, but if not treated before the child is four or five years old, the squinting eye will become difficult to treat, and become rapidly less amenable to treatment as the child grows older.

Cause.

(i) In convergent squint the child is usually long-sighted. The normal person combines focussing for near work with convergence of the eyes. The excessive amount of focussing (accommodation) necessary in long-sighted eyes, uncorrected with glasses, may tend to cause excessive convergence or squint to develop.

(ii) Lack of development of binocular vision and stereoscopic fusion sense.

Treatment.

Occulusion. (i) It is difficult to ascertain a child's visual acuity before he has learned to read. If the squinting eye is found to be lazy (ambyopic) occulusion of the good eye must be employed. The most efficient method of occulusion is to place a piece of elastoplast, the centre of which is covered with lint so

that it does not stick to the eye, over the fixing eye. This must be removed daily to clean the eye. This occulusion may be maintained for 6-12 weeks until the lazy eye improves up to 6/12 or 6/9. A less efficient occulusion is a vulcanite cup or black cloth cap fitting over the spectacle of the fixing eye.

(ii) Glasses as strong as can be worn compatible with good vision are usually ordered; and they must be worn from waking time to bed time at night.

(iii) At about the age of five orthoptic exercises are used and some cases of strabismus are cured by them. The squint training exercises aim at developing binocular vision.

(iv) Operation. In a convergent squint (the usual type) the internal rectus muscle is "loosened" and the external rectus muscle "tightened"; depending on the degree of squint one or both procedures are carried out. The "recession of the internal rectus" and the "advancement of external rectus muscle" is a delicate operation and a fascinating one to watch.

An absolute operation was to divide the internal rectus muscle (tenotomy) and allow it to adhere to the eye further back.

A general anæsthetic is often required. After a squint operation both eyes are bandaged.

Vision.

Acuteness of vision can be measured by the nurse with the help of Snellen's test types. The types are hung on

the wall 20 feet from the patient. Every nurse is familiar with the test card which has several rows of letters of different sizes. Each row has a number, 60, 36, 24, 18, 12, 9 and 6 being the numbers used. The number indicates the distance (in metres) at which a normal sighted person can read any particular line. The largest type has the highest number *e.g.*, the largest—60—can be read by the normal eye at 60 metres, the 24 lines at 24 metres and so on. A metre is about 3 feet 5 inches.

To Record the Vision of the Right Eye. Seat the patient at 6 metres (20 feet approx.) from the test chart. Cover the left eye and tell him to read the letters aloud starting at the top. If he reads line '12' his vision R.V. is 6/12; if he reads the bottom line his R.V. is 6/6. The numerator gives the distance at which the vision is tested, the denominator, the distance at which he should read the type with that number. Therefore in the first case the patient sees at 6 metres. Walk him up to the card until he can see it. If he is 2 metres away when he sees the 'line 60' his Right Vision (R.V.) is 2/60. As before the upper number 2 is the distance at which he should read the type of that number. If he cannot see the line '60' at 1 metre (3 feet 5 inches) hold up the fingers before him and record his vision: R.V. fingers at so many inches. If he cannot see the "fingers test", see if he can see the hand movements, test if he can distinguish light from dark, that is see if he has any perception of light—P.L. or no P.L. The projection of light and the macular region are

tested by the eye specialist.

Near Vision is tested in a good light. The patient is given a reading card on which each sized type is numbered. Find the smallest type the patient can see and the distance at which he can read it and record it as: J 1 or 2 or whatever it is, at so many inches. The left eye is measured in the same way.

Accommodation is the power possessed by the eye of adjusting itself for sight at different distances. This power lies in the Ciliary muscle and the elasticity of the lens.

Emmetropia is the optical condition of the eye which forms a distinct image of distant objects on the retina without using accommodation. This is the condition of a normal eye.

Hypermetropia is an optical defect in the eye, it being too short. It causes long-sight. Correcting glasses relieve it.

Myopia is an optical defect in the eye, it being too long. It causes short-sight. Correcting glasses relieve it.

Astigmatism is an optical defect in the eye, the curvature being unequal. It causes blurred vision. Correcting glasses relieve it.

Diplopia means double vision.

Presbyopia or old sight is a defect of accommodation coming on about the age of forty-five years. It is due to loss of elasticity of the lens.

Nystagmus is an involuntary rapid movement of the eyeball. It may be internal, vertical or rotary.

Proptosis or Exophthalmos is a protrusion forward of the eyeball.

Over-population and Under-production Eastern Europe, 15 for the Near East, and 20 for Latin America.

In those areas where limitation of the population may seem essential, there are more economical and humane agents of control than malaria and tuberculosis.

Experts of the Food and Agriculture Organisation have said:

"Many people, who have given serious study to the population problem, prophesy doom for much of

[Contd. from page 297]

mankind unless the rate of population growth can be drastically checked. It is worth reiterating that the fundamental solution of this problem lies in increasing the productivity of the individual. To the extent this is done, every individual can become a source of new wealth to his country and to the world. To the extent that it is not done, he is a potential liability, unable to supply his own needs, let alone helping to supply those of his fellow human beings."