

that should guide him and cause him to administer that which will relieve the present suffering, forgetting what will be most conducive to the ultimate good.

In acute diseases, as fevers, want of sleep increases greatly the dangers by continued exhaustion, without the periods of lessened waste and increased excretion that sleep affords. Under such conditions there can be no question as to the advantage, or even necessity, of hypnotics. In painful incurable diseases, and often in the aged, their use becomes necessary, and their abuse improbable, and of little moment. It is in the neurotic that their use is so liable to be followed by their abuse that they should be given only with greatest precaution. So great is the danger from their use that they should not be resorted to until after other means of relief have failed. It should be remembered that, with rare exceptions, their administration is followed by disappointment; not rarely they fail to produce sleep, and often, if they succeed, their use is followed by effects almost as annoying as the want of sleep.

In the aged, and in states of exhaustion, no hypnotic is more useful than alcohol. With it may be given the cardiac tonics, especially digitalis, caffeine, strychnine, etc. Cases occur not rarely in which there is great desire to sleep while going about during the day, or while sitting in a chair; but on lying down on a sofa or in bed the sleepy feeling is at once dissipated. This condition is due to vaso-motor paresis, by which the blood, on account of the weakness and dilatation of the vessels, is allowed to drain from the brain in the erect posture, rendering it anæmic, hence the sleepiness. As soon as the recumbent position is assumed, the dilated cerebral vessels fill with blood, and sleepiness disappears in consequence. Bromides and general hypnotics do little good in such cases; the best hypnotic for them is digitalis, given sufficiently freely to cause vaso-motor contraction and a reduction of the blood supply to the brain. The general health and nutrition should also receive attention. Champagne at times succeeds admirably in such conditions. Ale succeeds in some when other forms of alcoholic stimulants fail. The continued necessity for such stimulation shows that the sufferer has little nerve vitality to draw upon; then

there is the great danger of the alcoholic habit being formed.

Opium is, in many respects, without a peer as a hypnotic. It is indispensable in painful affections, and equally so in the insomnia of heart disease. In the latter the dose should be carefully regulated, as in too large doses opium depresses the heart, while in small ones it acts as a heart tonic. When alcoholics fail in the insomnia of the aged, opium may succeed.

Chloral hydrate is probably our most powerful hypnotic, possessing a narrow range of other therapeutic use. Its use need not be discussed, being too well known. The grave objections to its use are the danger of the chloral habit, its depressing effect on heart and respiration, and toxic effect on the kidneys. Its prolonged use leads also to mental enfeeblement, with intractable insomnia.

The bromides, by their sedative action and effect in rendering brain anæmic, are useful aids in inducing sleep, though they can scarcely be called hypnotics. They need to be given freely, and well diluted, during the day or evening. If long continued, they will defeat their own ends by their interference with cerebral nutrition.

In paraldehyde, I have had probably the most satisfactory hypnotic. In doses of one drachm or less it leaves no unpleasant effects, and usually is effective in producing sleep. It is useful in excitement, and its effect may be increased by the addition of a small amount of morphia. Its disagreeable taste and smell is its chief objection, and yet even that is of great use in some neurotic subjects.

Sulphonal, an excellent hypnotic in many, fails wholly in others. Its effect is not rarely prolonged into the next day, even then shown most markedly. It may even in moderate doses cause depression of the heart. It is dissolved with difficulty, and therefore slow in action. It is usually given, therefore, early after dinner, or dissolved in a good quantity of water, may be taken in divided doses later. So given, its effect has been found more certain.

Hyoscyamine I have not found of any benefit, even in doses of  $\frac{1}{32}$  gr. repeated; but my experience with it has been very limited.

Phenacetine is a very useful remedy in many cases of restlessness, especially if there is some fever. It may cause profuse diaphoresis, and