

me to say that belladonna or atropine may be freely used without apprehensions as to any toxic effects appearing. Even with $\frac{1}{2}$ th of a grain of atropine every night, the patients do not complain much; some dryness of the throat and a little indistinctness of vision being all, while all prefer these to their dreaded sweats. These effects wear off in a day or two after the drug is discontinued, or even the dose reduced. I have not yet seen any alarming symptoms produced. This I attribute to the gradual increase of the dose; and I have little doubt that if $\frac{1}{2}$ th were given at first, many cases would show marked toxic symptoms. But where there seems a tolerance of the drug, the dose must be increased; and may safely be increased. Belladonna is an agent which produces marked toxic symptoms long before a fatal dose is reached; much the same as is the case with strychnia. It is not a treacherous drug by any means, and may be used with confidence. Dr. Charles Kelly (*Practitioner*, March, 1873) found that, in the treatment of whooping-cough, half an ounce of the tincture in twenty-four hours could be safely taken by children of three or four years of age. Without advocating such large doses, until a further experience demonstrated their safe use, I may say that from $\frac{1}{7}$ th to $\frac{1}{2}$ th of a grain of atropine, and from 20 to 35 minims of the tincture of belladonna are quite safe doses. The atropine may be given in pill; while the tincture of belladonna is best combined with dilute phosphoric or sulphuric acid (*mxv*), and may be taken at bedtime or when the patient awakens, about two or three in the morning. It is my intention to try larger doses for the relief of the colliquative sweats of advanced phthisis. As to the actual facts of toxic symptoms of the seventy-four cases mentioned, one had dryness of the throat, a second had some derangement of the pupils, and a third some indistinctness of vision on getting out of bed in the morning, which quickly wore off.

If any doubts existed as to the casual associations betwixt the administration of the belladonna and the arrest of the hidrosis, they are dissipated by the fact that on omitting the medicine the perspirations returned—as when the patients neglect to attend the hospital, and

so are without their medicine. On again taking the medicine the sweats disappear. This puts the matter beyond doubt or cavil, especially when combined with Ringer's experiments, which are well worth perusal.

A few words now as to the practical use of belladonna in the treatment of phthisis. The most common cases are those where a slowly spreading caseous pneumonia involves one lung to the second, third, fourth, or fifth rib. There is a fast pulse, over 100, a temperature over 100° Fabr., cough, profuse night-sweats, and rapid wasting. It is in these cases that the utility of belladonna is so well seen. As soon as the profuse night-sweats are checked, the patient begins to pick up; the appetite returns; food is better assimilated; the sleep is refreshing; and the mind is much relieved. In fact the arrest of the drain of salts by the hidrosis at once inaugurates an improvement; and the good effects of the other measures resorted to are not lost, as before. It is well, at the same time, to give the patient tonics, iron with strychnine or quinine, together with mineral acids; good food in liberal supplies, and cod-liver oil if the stomach will carry it. The association of night-sweats with debility is notorious. Fuller recommends some alcohol to be taken at bedtime invariably. When the morning sleep is deep the sweats are most profuse, and are "to be in part avoided by keeping awake, which is often done purposely." (Marshall Hall.)

Finally, my experience of pulmonary phthisis is not depressing, but rather encouraging, especially in its early stages. It has been much more cheering since I have employed belladonna extensively. In some cases where the belladonna does not act as potently as usual, oxide of zinc with hyoscyamus is found to be effective. In those cases where the cough at night prevents sleep, opium may be given with belladonna. The belladonna prevents too great action on the sudoriparous glands, and the combination is very effective. To prevent too much action in the intestinal canal, it is well to give the neurotics in pill with aloes. A pill of morphia ($\frac{1}{2}$ a grain), atropine, $\frac{1}{3}$ th in three grains of pil. al. et myrrh., is used by me at Victoria Park, and acts satisfactorily. It is