

to call to our aid a means of knowledge so important as pathology. Cases not unfrequently arise, also, in which all the apparent symptoms of a disease may be perfectly covered by several different medicines: in cases of this description, it is manifestly more proper to select that particular drug which produces pathological changes when taken in large doses, most closely resembling those of the disease we wish to cure. By this method, our simile will be more complete, and our success more certain.

Pathology also affords a positive confirmation of the truth and accuracy of our drug provings, and this alone should induce us to cultivate it as an important auxiliary to our *Materia Medica*. For example, belladonna, according to Hahnemann, gives rise to the following symptoms: "headache, in consequence of the congestion of blood to the brain; congestion to the head, with coma or delirium; erysipelatous inflammation of the head, with delirium; sleeplessness, from indulgence in spirituous drinks, with congestions to the head and eyes; lethargy, with redness of the face; turgescence of the veins of the neck and temples; vertigo; sense of intoxication, as from drinking wine or brandy, with a bloated, red countenance; confusion of the mind; coma; illusions; mental exaltation; he imagines that he sees ghosts and other fanciful objects; loss of consciousness; stupor; spasms in the arm at night; convulsions of the extremities; headache, with dilatation of the pupils; swelling, heat and redness of the face; eyes red, sensitive to light, and unnatural in expression; obscuration of sight; dilatation of the pupils; amaurosis; visual illusions; suffused eyes; paralysis of the arms; paralysis of the lower limbs; convulsions; convulsive movements of the limbs; difficult deglutition; inflammation of the throat and fauces, with soreness, burning and dryness, especially when swallowing or spitting; exanthematous eruption; scarlet spots and scarlet redness of the skin, like scarlatina; glandular swellings."

These are a few of the symptoms to which large doses of belladonna, when taken by a healthy person, are supposed to give rise; but our opponents assert that most of these symptoms are purely imaginary, and that this drug does not exercise the specific actions upon the brain and other tissues which are attributed to it. But, thanks to morbid anatomy, we are now able to confirm our provings beyond all question.

In order to illustrate our position clearly, we shall first describe the morbid changes which have been found in the autopsies of

those who have been accidentally poisoned by belladonna, and then enumerate the symptoms which, according to the best allopathic writers, proceed from such changes. In the same connection we shall allude to some experiments which have been made upon animals with this drug; and finally compare the provings of Hahnemann and his disciples with these pathological appearances.

The following are a few of the morbid changes that have been found by different pathologists in those who have died from poisonous doses of belladonna: congestion of the vessels of the cerebral lobes, strongly marked in the tubercula quadrigemina; vessels of the dura mater, and pia mater distended with black blood; injection of the vessels of the cortical substance of the brain, of a red, or deep brown color; appearances of inflammation in the neurilemma of the optic nerve; red and dark patches on different parts of the body; congestion of the vessels of the eyes; dilatation of the pupils; deep red colour of the mucous membrane of the throat; signs of venous congestion in various parts of the body.

These are a few of the pathological changes induced by poisonous doses of belladonna upon the human organism; we shall now enumerate the symptoms, which, according to distinguished pathologists of both schools, always proceed from disorders of the different parts of the body to which we have just alluded.

"Irritation of the cerebrum, gives rise to *delirium*; congestion of the vessels of the cerebrum, to *coma*; lesion of the encephalon, of the medulla oblongata, or of the medulla spinalis, gives rise to *paralysis*."

"Belladonna affects primarily the centre of sensation, and particularly the special centre of the implantation of the optic nerves; whence the dilated pupils and the amaurosis which arise from the use of this drug; and afterwards the belladonna, having paralyzed the centre of sensation, destroys the powers of the intellectual centres, and causes coma." (*Flourens*.)

"The seat of the diseased action which may cause delirium is the convolutions of the brain—or such parts as are so intimately connected with them that the nutrition of the one cannot be disturbed without the disturbance of that of the other."

"The seat of the diseased action which may cause coma is the same centre, with or without the centre of sensation; or the morbid process may begin in the centre of sensation, destroying certain kinds of consciousness, and may extend to the intellectual centres, making the coma complete."