

by C. T. Haden, Esq. 1825,) has related a case in which two drachms and a half of tincture of colchicum produced death: the mother of the patient was also exceedingly susceptible of the action of colchicum even in very small doses. In some instances the effect of idiosyncrasy is to diminish the activity of medicines. Thus some persons are exceedingly insusceptible of the action of mercury.

k. *Tissue or organ*.—The nature of the part to which a medicine is applied, has an important influence over the effect produced. The stomach, for example, is much more susceptible of medicinal impressions than the skin. Opium acts more powerfully on the system when applied to the serous than to the mucous tissues. Carbonic acid acts as a positive poison when taken into the lungs, but as a grateful stimulant when applied to the stomach. The modifications effected by the nature of the tissue will be more fully noticed hereafter.

### 8. Therapeutical Effects of Medicines.

The effects produced on diseases by the influence of medicines are denominated *therapeutical*. They are sometimes termed *secondary*, because, in a great majority of instances they are subordinate to those already described under the name of physiological.

MODE OF PRODUCTION.—Therapeutical effects are produced in two ways:—

1. *By the influence of a medicine over the causes of diseases*.—This may be *direct* or *indirect*. Medicines which act directly are termed by Hufeland (*Lehrbuch*, p. 194) *specifica qualitativa*. As examples, the chemical antidotes may be referred to. Those anthelmintics (as oil of turpentine), which poison intestinal worms, also belong to this division. If the efficacy of sulphur in the cure of itch depend on its destroying the *Acarus Scabiei*, this will be another instance of the direct operation of an agent on the cause of a disease. As an example of a medicine acting *indirectly*, I may mention the dislodgement of a biliary calculus, contained in the ductus choledochus, by the administration of ipecacuanha as an emetic: or the removal, by a purgative, of a morbid condition of system, kept up by the presence of some depraved secretion in the bowels, the result of a previous disease.

2. *By modifying the actions of one or more parts of the system*.—In a large majority of instances the causes of disease are either not known, or they are not of a material nature. In all such cases we administer medicines with the view of producing certain changes in the actions of one or more parts of the system, and thereby of so altering the diseased action as to dispose it to terminate in health. Thus inflammation of the lungs frequently subsides under the employment of nauseating doses of tartarized antimony; and emetics will sometimes put a stop to the progress of hernia humoralis.

The medicines belonging to this division may be arranged in two classes; those which are applied to the diseased part, and, secondly, those which are applied to other parts.

a. *Topical agents*.—Under this head we include unguents or lotions used in cutaneous diseases, ulcers, &c.; gargles in affections of the mouth and throat; collyria in ophthalmic diseases; and injections into the vagina and uterus in affections of the urino-genital organs. In all such cases we can explain the therapeutic effect in no other way than by assuming

that the medicine sets up a new kind of action in the part affected, by which the previous morbid action is superseded; and that the new action subsides when the use of the medicine is suspended or desisted from. Sometimes it may be suspected that the influence which certain medicines exercise in diseases of remote organs, arises from their particles being absorbed, and, through the medium of the circulation, carried to the parts affected. Thus the beneficial influence which the turpentes occasionally exert in affections of the mucous membranes (as in gleet and leucorrhœa) may perhaps be owing to a topical influence of this kind; as also strychnia in affections of the spinal marrow.

*b. Medicines which indirectly influence diseased action.*—Under this head I include all those agents operating on some one or more parts of the body, which have a relation with the diseased part. Thus emetics may influence a disease by the mechanical effects of the vomiting which they induce. Alterations in the quality of the food relieve diseases depending on morbid changes of the blood,—as when we substitute fresh meat and vegetables, and the use of vegetables acids, for salt provisions in scurvy. Opium relieves spasm and pain, as in colic, or in the passage of calculi. Purgatives relieve cutaneous and cerebral affections; diuretics, dropsies; blisters, internal diseases, &c.

FUNDAMENTAL METHODS OF CURE.—According to the homœopaths there are only three possible relations between the symptoms of diseases and the specific effects of medicines—namely, *opposition*, *resemblance*, and *heterogeneity*. It follows, therefore, that there are only three imaginable methods of employing medicines against disease; and these are denominated *antipathic*, *homœopathic*, and *allopathic*.

1. *Antipathia* (from ἄντι, *opposite*, and Πάθος, *disease*).—The antipathic (called also by Hahnemann, *enantiopathic* or *palliative*) method consists in employing medicines which produce effects of an opposite nature to the symptoms of the disease, and the axiom adopted is “*contraria contrariis opponenda*.” Hippocrates may be regarded as the founder of this doctrine; for in his twenty-second Aphorism (*Aphorismi, Sectio 2<sup>nda</sup>*.) he observes—“All diseases which proceed from repletion are cured by evacuation; and those which proceed from evacuation are cured by repletion. And so in the rest; contraries are the remedies of contraries.”

We adopt this practice when we employ purgatives to relieve constipation; depletives to counteract plethora; cold to alleviate the effects of scalds; narcotics to diminish preternatural sensibility or pain; and opium to check diarrhœa.

But purgatives are not to be invariably employed in constipation, nor opium in pain. Reference must be constantly had to the cause of these symptoms. If confinement of bowels depend on a torpid condition of the large intestines, powerful purgatives may be administered with great benefit; but if it arise from acute enteritis or strangulated hernia, they will probably increase both the danger and sufferings of the patient. Again, opium may be beneficially given to relieve the pain of colic, but it would be highly improper in all cases of acute pain, as in pleurisy.

The homœopaths object to antipathic remedies, on the ground that though the primary effects of these agents may be opposite to the phenomena of a disease, the secondary effects are similar to them. “Constipation excited by opium (primitive effect) is followed by diarrhœa (secondary effect); and evacuations produced by purgatives (primitive

effect) are succeeded by costiveness, which lasts several days (secondary effect)." (*Hahnemann, Organon*, § lxi). The only mode of meeting statements of this kind is to appeal to experience. Is opium ever beneficial in diarrhœa? Are purgatives useful in any instances of constipation? The homœopathists reply to both of these questions—No. We answer—Yes. Here, then, we are at issue with them on a matter of fact.

2. *Homœopathia* (from "Ὁμοίος, like or similar, and Πάθος, a disease).—The homœopathic method of treating diseases consists in administering a medicine capable of producing an affection similar to the one to be removed, and the axiom adopted is "*similia similibus curantur.*"

Hahnemann's first dissertation on homœopathy was published in 1796, in Hufeland's *Journal* (*Preface to the English Translation of the "Organon."*) In 1805 appeared his "*Fragmenta de viribus medicamentorum positivis.*" But the first systematic account of this doctrine appeared in 1810, in a work entitled "*Organon der rationellen Heilkunde.*"

The following, says Hahnemann, are examples of homœopathic cures performed unintentionally by physicians of the old school of medicine:

The author of the fifth book, *Ἐπιδημιῶν*, attributed to Hippocrates, speaks of a patient attacked by the most violent cholera, and who was cured solely by white hellebore; which, according to the observations of Forestus, Ledelius, Reimann, and many others, produces of itself a kind of cholera. The English sweating sickness of 1485, which was so fatal that it killed 99 out of 100 affected with it, could only be cured by the use of sudorifics. Dysentery is sometimes cured by purgatives. Tobacco, which causes giddiness, nausea, &c. has been found to relieve these affections. Colchicum cures dropsy, because it diminishes the secretion of urine, and causes asthma in consequence of exciting dyspnœa. Jalap creates gripes; therefore it allays the gripes which are so frequent in young children. Senna occasions colic; therefore it cures this disease. Ipecacuanha is effectual in dysentery and asthma, because it possesses the power of exciting hæmorrhage and asthma. Belladonna produces difficult respiration, burning thirst, a sense of choking, together with a horror of liquids when brought near the patient; a flushed countenance, eyes fixed and sparkling, and an eager desire to snap at the by-standers; in short, a perfect image of that sort of hydrophobia which Sir Theodore de Mayerne, Münch, Buchholz, and Neimicke, assert they have completely cured by the use of this plant. When, indeed, belladonna fails to cure canine madness, it is attributable, according to Hahnemann, either to the remedy having been given in too large doses, or to some variation in the symptoms of the particular case, which required a different specific—perhaps hyoscyamus, or stramonium. Drs. Hartlaub and Trinks have subsequently added another homœopathic remedy for hydrophobia—namely, cantharides. Opium cures lethargy and stupor, by converting it into a natural and healthy sleep. The same substance is a cure for constipation. Vaccination is a protection from small-pox, on homœopathic principles. The best application to frost-bitten parts is cold, either by the use of some freezing mixture or by rubbing the part with snow. In burns or scalds the best means of relief are the exposure of the part to heat, or the application of heated spirit of wine or oil of turpentine.

Hahnemann thinks that it is of little importance to endeavour to elucidate, in a scientific manner, how the homœopathic remedy effects a cure; but he offers the following as a probable explanation. The medi-

cine sets up, in the suffering part of the organism, an artificial but somewhat stronger disease, which, on account of its great similarity and preponderating influence, takes the place of the former; and the organism from that time forth is affected only by the artificial complaint. This, from the minute dose of the medicine used, soon subsides, and leaves the patient altogether free from disease; that is to say, permanently cured. As the secondary effects of medicines are always injurious, it is very necessary to use no larger doses than are absolutely requisite, more especially as the effects do not decrease in proportion to the diminution of the dose. Thus eight drops of a medicinal tincture do not produce four times the effect of two drops, but only twice: hence he uses exceedingly small doses of medicines. Proceeding gradually in his reductions, he has brought his doses down to an exiguity before unheard of, and seemingly incredible. The millionth part of a grain of many substances is an ordinary dose; but the reduction proceeds to a billionth, a trillionth, nay, to the decillionth of a grain, and the whole materia medica may be carried in the waistcoat pocket.

The following is the method of obtaining these small doses:—Suppose the substance to be a solid; reduce it to powder, and mix one grain of it with ninety-nine grains of sugar of milk: this constitutes the *first attenuation*. To obtain the *second attenuation*, mix one grain of the first attenuation with a hundred grains of sugar of milk. The *third attenuation* is procured by mixing one grain of the second attenuation with ninety-nine grains of sugar of milk. In this way he proceeds until he arrives at the *thirtieth attenuation*. The following table will shew the strength of the different attenuations, with the signs he employs to distinguish them:—

Signs.	Strength of one grain.	Signs.	Strength of one grain.
1. First attenuation .....	One hundredth part of a grain.	V. Fifteenth .....	One quintillionth.
2. Second .....	One thousandth.	VI. Eighteenth .....	One sextillionth.
I. Third .....	One millionth.	VII. Twenty-first .....	One septillionth.
II. Sixth .....	One billionth.	VIII. Twenty-fourth .....	One octillionth.
III. Ninth .....	One trillionth.	IX. Twenty-seventh .....	One nonillionth.
IV. Twelfth .....	One quadrillionth.	X. Thirtieth .....	One decillionth.

Here is a tabular view of the doses of some substances employed by the homœopaths:—

Charcoal,	one or two decillionths of a grain.
Chamomile,	two quadrillionths of a grain.
Nutmeg,	two millionths of a grain.
Tartar emetic,	two billionths of a grain.
Opium,	two decillionths of a drop of a spirituous solution.
Arsenious acid,	one or two decillionths of a grain.
Ipecacuanha,	two or three millionths of a grain.

These doses are given in pills (*globuli*), each about the size of a poppy-seed.

Hahnemann gravely asserts, that the length of time a powder is rubbed, or the number of shakes we give to a mixture, influences the effect on the body. Rubbing or shaking is so energetic in developing the inherent virtues of medicines, that latterly, says Hahnemann, "I have been forced, by experience, to reduce the number of shakes to two, of which I formerly prescribed ten to each dilution" (*Organon*). In mixing a powder with sugar, the exact period we are to rub is, therefore, laid down: in dissolving a solid in water, we are told to move the phial "*circa axin*

*suam,*" and at each attenuation to shake it *twice*—"bis, brachio quidem bis moto, concute." (See Dr. Quin's "*Pharmacopœia Homœopathica.*")

The principal facts to be urged against this doctrine may be reduced to four heads:—

1st. Some of our best and most certain medicines cannot be regarded as homœopathic: thus sulphur is incapable of producing scabies, though Hahnemann asserts it produces an eruption analogous to it. Andral took quinia in the requisite quantity, but without acquiring intermittent fever; yet no person can doubt the fact of the great benefit frequently derived from the employment of this agent in ague; the paroxysms cease, and the patient seems cured. "But," says Hahnemann, "are the poor patients really cured in these cases?" All that can be said is, that they seem to be so; but it would appear, according to this homœopath, that our patients do not know when they are well. We are also told, that whenever an intermittent resembles the effects of cinchona, then, and not till then, can we expect a cure. I am afraid if this were true, very few agues could be cured. Acids and vegetable diet cure scurvy, but I never heard of these means causing a disease analogous to it.

2dly. In many cases homœopathic remedies would only increase the original disease. Only contemplate the evils likely to arise from the exhibition of acrid substances in gastritis, or of cantharides in inflammation of the bladder, or of mercury in spontaneous salivation.

3dly. The doses in which these agents are exhibited are so exceedingly small, that it is difficult to believe they can produce any effect on the system, and, therefore, we may infer that the supposed homœopathic cures are referrible to a natural and spontaneous cure. What effect can be expected from one or two decillionth parts of a drop of laudanum? Hahnemann says it is foolish to doubt the possibility of that which really occurs; and adds, that the sceptics do not consider the rubbing and shaking bestowed upon the homœopathic preparation, by which it acquires a wonderful development of power!

4thly. Homœopathia has been fairly put to the test of experiment by some of the members of the *Académie de Médecine*, and the result was a failure. Andral tried the system on 130 or 140 patients, in the presence of the homœopaths themselves, adopting every requisite care and precaution, yet in not one instance was he successful. (See *Medical Gazette*, vol. xv. p. 922.)

3. *Allopathia* (from *ἄλλος*, *another*, and *πάθος*, *a disease*). The allopathic (called also by Hahnemann *heteropathic*) method consists in the employing medicines which give rise to phenomena altogether different or foreign (neither similar nor exactly opposite) to those of the disease.

Under this head is included that mode of cure effected by what is called *Counter-irritation*; that is, the production of an artificial or secondary disease, in order to relieve another or primary one. It is a method of treatment derived from observation of the influence which maladies mutually exert over each other. For example, it has been frequently noticed, if a diarrhœa come on during the progress of some internal diseases, the latter are often ameliorated, or perhaps they rapidly disappear, apparently in consequence of the secondary affection. The result of observations of this kind would naturally be the employment of alvine evacuants in other analogous cases where diarrhœa did not spontaneously take place: and this practice is frequently attended with beneficial

results. The appearance of a cutaneous eruption is sometimes a signal for the disappearance of an internal affection; and *vice versâ*, the disappearance of a cutaneous disease is sometimes followed by disorder of internal organs. Here, again, we have another remedy suggested, namely, the production of an artificial disease of the skin, as by blisters, by an ointment containing tartar emetic, or by other irritating applications;—a suggestion the advantage of which experience has frequently verified. I might bring forward numerous other examples to prove the fact (which, however, is so well known as to require little proof,) that action in one part will often cease in consequence of action taking place in another. Diseases, then, appear to have what Dr. Pring (*Principles of Pathology*, 1823, p. 352, *et seq.*) calls a *curative relation* with respect to each other; and we shall find that the greater part of our most valuable and certain remedies operate on the principle of counter-irritation; that is, they produce a secondary disease which is related to the primary one. Dr. Parry (*Elements of Pathology and Therapeutics*, 2nd edit. 1825,) calls this the "*cure of diseases by conversion.*" Let us offer a few examples:—vomiting is a powerful means of relief in bubo, and also in swelled testicle. John Hunter says, he has seen bubo cured by a vomit. I have frequently seen the progress of swelled testicle in gonorrhœa stopped by the exhibition of full doses of tartar emetic. Now it is very improbable that the benefit arises from the mere evacuation of the contents of the stomach. The only plausible explanation to be offered is, that the emetic sets up a new action in the system, which is incompatible with that going on in the groin or in the testicle. If this notion be correct, emetics act in these cases as counter-irritants. The efficacy of purgatives, in affections of the head, is best accounted for by supposing that they operate on the principle of counter-irritation. Blisters, canteries, issues, moxa, and other remedies of this kind, are universally admitted to have a similar mode of operation.

Even the efficacy of blood-letting, in inflammatory affections, is better explained by assuming that this agent induces some new action incompatible with the morbid action, than that it is merely a debilitant. The immediate effect sometimes produced on disease, by this remedy, is so remarkable as hardly to admit of the supposition of its acting as a mere weakening agent. One full blood-letting will sometimes put an immediate stop to ophthalmia; and I have sometimes seen, even while the blood was flowing, the vascularity of the eye diminish, and from that time the disease progressively declined. When to this fact we add that the same disease is often successfully treated by other different, and even opposite remedies, such as mercury, and stimulant applications, we find a difficulty in explaining their beneficial agency, except by supposing that they influence disease by some relation common to all of them. This view of the counter-irritant operation of blood-letting is supported by Dr. Clutterbuck, (*Lectures on the Theory and Practice of Physic*, published in the *Lancet*, vol. x. 1826,) Dr. Pring, (*op. cit.* pp. 465-8,) and others. The term *counter-irritant* is, however, objectionable, since literally it expresses that the secondary disease should be a state of irritation,—a term hardly applicable to the condition caused by blood-letting. But this, as well as other remedial agents (mental impressions, for example,) agrees with the counter-irritants, commonly so called (blisters, &c.) in influencing diseases only by an indirect relation; it would

be better, therefore, either to extend the meaning of the term counter-irritant, or to employ some other, such as *counter-morbific*.

The older writers employed two terms, *Revulsion* and *Derivation*; the first was applied to those cases in which the secondary disease occurred in a part remote from the seat of the primary affection; the second was, on the contrary, confined to those instances in which the secondary was produced in the neighbourhood of the primary disease. For example, leeches or blisters applied to the feet in apoplexy were called revulsives, but the same applications to the head, in the same disease, would be derivatives. There is, however, no real distinction between them, their operation being similar; for revulsion was, even in their own sense of the word, only derivation at a distant part.

Topical applications are frequently counter-irritants. Thus we see stimulant washes, applied to the eye, cure ophthalmia; and they operate, apparently, by altering the morbid action, and substituting a milder and more easily cured disease for the one previously existing.

Using the term, therefore, in its most extended sense, we see our list of counter-irritants is a most extensive one. It comprehends emetics, purgatives, diffusible stimulants, mercury, blisters, cauteries, issues, setons, moxa, blood-letting, (including arteriotomy, venesection, cupping, and leeches,) irritating lavements, frictions, sinapisms, rubefacients, the hot and cold baths, and even mental impressions. That is, all these agents excite some action in the system which has a relation (oftentimes beneficial) with the morbid action: to use Dr. Parry's words, these agents cure disease by *conversion*.

The most unsatisfactory part of our subject is, the theory or hypothesis of the manner in which the mutual relations of diseased actions are effected. Dr. Parry presumes most diseases consist in local determinations of blood, and that it is a law of the human constitution that excessive morbid determination to two different parts shall not exist in the same person at the same time. Neither of these assumptions, however, is quite correct; but if both were true, they still leave untouched the question how determination of blood to one organ is cured by producing a determination to another. To account for it, some assume that the system can produce only a certain quantity of nervous energy, and that, as in every disease, there is an undue or preternatural distribution of nervous energy, so the production of an artificial disease in one part must, by consuming the nervous energy, diminish the disease in another. But the whole hypothesis is grounded on assumptions perfectly gratuitous and incapable of proof. As Dr. Pring justly observes, were this hypothesis true, it would lead us to employ not bleeding, purgatives, blisters, and all indirect remedies in hepatitis or consumption, but the exercise of the treadmill for a few hours; so that a patient labouring under phrenitis or pneumonia should be made to walk fifteen or twenty miles a day, by which it would be presumed so much nervous energy would be consumed in the arms and legs, that there could not possibly be any preponderance or excess in any other seat.

Let us, then, discard absurd hypotheses of this kind; and for the present be content with the knowledge of the fact that one disease, whether artificially or spontaneously generated, will often, but not invariably, supersede another.