

belt". Most people would sooner face a revolver than a bottle of vitriol.

Any joint effort, therefore, which can be made by the scientific workers of the world to limit the use of methods of warfare which involve death and torture to innocent and unprotected people is to be welcomed.

Nevertheless, the intelligence which is capable of investigating the furthest star or the smallest molecule, that has discovered means of communication which have annihilated space and time, can surely produce some result if it will honestly and humbly set itself to the study of these infernal forces which lie in the subconscious mind of man, and which need to be controlled by some higher energy if all the fair prospects of humanity are not to be obliterated in one hideous ruin. The famous psychiatrist Dr. Jung says "it is the psyche of man which makes wars.....the most tremendous danger that man has to face is the power of his ideas. No cosmic power on earth ever destroyed ten million men in four years but man's psyche did it *and it can do it again*. I am

afraid of one thing only, the thoughts of people. I have means of defence against things."

The following resolutions, put forward from the chair, were passed by the meeting:

"This meeting while pledging its support to every united effort which can be made to abolish methods of warfare which are repugnant to the common instinct of humanity recognises that the more important objective is the abolition of war itself.

To attain this end it would urge constant and strenuous activity on the part of thinkers and men of science.

In particular it records its opinion that more attention should be given by them to the study of the new economic conditions, which of necessity, accompany the advance of scientific research.

Of equal or greater importance is the study of means for controlling the evil effects of "mass suggestion," by the more powerful agency of widely disseminated right ideas through the adoption of an international system of education."

Rabies—A Note.

By S. P. Deshpande, G.B.V.C.

(N. S. Agricultural College Veterinary Hospital, Poona.)

RABIES is a very common and most unfortunate disease in Veterinary practice, especially in dogs. No attempt at treatment or relief can be made. If anything in the form of narcotics is given, it is likely to mask the characteristic symptoms and make diagnosis more difficult. Either the patient is allowed to die a natural death or destroyed when diagnosis is established beyond doubt.

In this article, the writer wishes to record certain symptoms of rabies which one comes across in daily practice. The symptoms of rabies, especially that of dumb form, are varied and are likely to escape one's notice, unless one has extensive practical experience.

There being no legislation about the control of stray dogs, this disease is playing a havoc taking a heavy toll of dogs and cattle in this country. Rabid cattle are not generally brought to hospitals. Dogs which are pet animals are generally brought to hospitals especially in cities; this disease is commonly observed among them. It is really a great menace to the dog world and in turn to human beings too. Costly and well-bred dogs stand a great chance of getting infection in spite of every precaution taken by the owner. For instance, a dog is being taken or led for a walk; some stray dog comes all of a sudden, bites it and disappears keeping the owner in doubt as to what type of dog it was: rabid or normal. We have had many such cases.

At this hospital, we have seen cases of rabies in horses, cows, buffaloes, sheep and goats, and dogs; in the latter we get a number of cases all the year round.

There are two forms of this disease, *viz.*, furious and dumb. Furious form is very easy to detect and the symptoms are clear, *viz.*, changed

appearance, silly look, very red eyes and rushing at every object which comes into view. Such dogs do a great deal of damage biting several persons and animals and thus spreading infection. In cases of furious form, the writer has observed that the dog said to disappear from the owner's house for two or three days, come back with the symptoms described above in a most exhausted condition biting everything that comes across, in the compound. In this form dogs are seen eating their own faeces. If allowed, to live, these furious symptoms are followed by exhaustion, paralysis and death. Several cattle are infected by a dog suffering from this form of rabies. This is how cattle get infected.

In the dumb form, variety of symptoms are observed. Melancholy stage is common to both the forms and is generally passed unnoticed, duration being short and also being not in any way very diagnostic in the first instance; but when the disease advances, pronounced symptoms are shown and they will be as follows:—

Uneasiness of a very peculiar type, congestion of conjunctiva, salivation from mouth, drooping of the head, changed behaviour, paralysis of the lower jaw, tongue of a lead colour, vague and listless expression, incoordination of the hind limbs, which afterwards develops into complete paralysis. Eyes sink. The animal is prostrate, breathing very heavily, gets convulsions, breathing becomes more distressing and sterterous, becomes exhausted and dies.

Wasting of muscles is very rapid in rabies so much so the dog becomes almost a skeleton in a few days' time. In many cases' appetite is totally suspended; but in some, the animal tries to lap and eat up to the last. In some cases, simply dry retching of a peculiar type and

uneasiness is noticed. The animal retches off and on and a peculiar noise is produced. In some cases, simply a vague expression and slight change in behaviour are noticed for four or five or even more days and then sudden death with convulsions takes place.

Very rarely, the disease develops as a complication in another disease and that is generally distemper. The only explanation for such an occurrence is that the patient must be pre-infected and this disease coming up as a matter of loss of vitality or predisposition due to the original disease. We had one case with typical symptoms of distemper which was treated as an out-patient for some days. After some days' treatment, the patient showed symptoms of rabies and died; the brain was sent for microscopical examination and the case was confirmed as rabies. Temperature in almost all cases is elevated, in some cases upto 106° F. In some cases acute uneasiness is noticed and the animal does not rest in one position for even a few seconds. In such cases, death may take place within 24 hours.

In the case of dogs, males are affected more than the females—probably the former being fighters are liable to be exposed to infection.

Very small puppies, even two months old, are also affected. We have seen two cases of furious rabies in small pups.

In the case of cattle, it is observed that the disease comes up just after calving.

Also the place and depth of bite wound are points worth considering. The deeper the bite and the nearer to the brain, the greater the

possibility of developing the disease. We have seen cases bitten on the nose and head to develop the disease within 25 days from the date of bite. Superficial bites elsewhere on the body have remote chance of causing infection. Also the quantity of poison injected is a factor worth considering; but unfortunately, this cannot be estimated.

Before concluding, it would not be out of place to mention some diseases which show at times the same symptoms as that of rabies and are likely to be mistaken for rabies *prima facie*.

(1) Sticking of bone in the throat: dry retching, salivation and uneasiness. (2) Acute Rheumatism: uneasiness, peculiar gait and animal snapping on palpitation. (3) Advanced cases of canine typhus: mouth held open due to ulceration of buccal membrane, salivation and exhaustion. (4) Milk apoplexy: uneasiness, dullness, gasping due to high temperature and suddenness of attack. (5) Ordinary convulsions of epilepsy when the animal is brought to hospital in the last stage and without history. (6) Very severe form of skin diseases. Irritation of the skin produces sometimes the same train of symptoms. (7) Severe form of canker, making the dog uneasy and to run with the head held low and flapping of ears. Even salivation is seen. (8) Motor or Cycle accident cases with no fracture but simply a smash: their wavering gait, salivation and dullness. (9) Nervous form of distemper. (10) Dislocation or paralysis of the lower jaw. (11) Vicious temperament. (12) Phosphorus or strychnine poisoning.

Résumé on the Literature of Indian Medicinal Plants.

By K. Biswas, M.A.

(Royal Botanic Garden, Sibpur, Calcutta.)

FREQUENT demands for characterisation of medicinal plants, for furnishing accurate information as to their distribution and life-history and for the supply of authentic specimens of genuine medicinal value, have led the writer to prepare a treatise on medicinal plants which will be published in due course. Attempts have been made from a very early period—as early as the Vedic period—to supply a work of such vital importance. Indeed, the origin of botanical science may be traced to the investigation of the medicinal properties of plants. Search for the healing properties of plants to mitigate the misery of human beings caused by various ailments led to the serious study of the plants around them. Thus developed the science of Ayurveda which forms an important part of Atharva Veda—the most ancient and celebrated treatise on Hindu medicine, although, the use of some plants is mentioned earlier in Rig Veda.

The works of Agnivesha, one of the six distinguished pupils of Ayurveda, resulted in the compilation of *Charaka-Samhita* by Charaka. *Sushruta-Samhita* then emanated from the pen of Sushruta, one of the brilliant disciples of Dhanvantari, the surgeon of heaven who took his

birth in this country as Divadasa, King of Benares, who was reputed for his extraordinary knowledge in surgery and medicine. Thus *Charaka-* and *Sushruta-Samhitas* are the oldest treatises now extant and are of such great value to the Hindus that they are considered to be divine and beyond criticism. Among the contributions of this early period mention may be made of Baghatta's *Astanga-hridaya-Samhita*; *Chakradatta-Sangraha*; *Sarangadhara-Sangraha*; Vab Misra's *Vab Prokasa*; Madan Pal's *Raj Nighanta* and several other *Nighantas* and works on *Drabya Gunas* formed the basis of further studies on medicinal plants. Works of Makhzum-ul-Adwiya and other Hakims written in Persian and Urdu may be mentioned as valuable contributions to medical science in those old days by Mahommedans.

Foreign influence on the study of plants either for purely theoretical interest or for information on their medicinal values, dates back to the sixteenth century when Portuguese and Dutch scientists came to India. They may be considered as the pioneer workers in this field. Thomas Rives, Odrardo Verbosa, Christobal DaCosta are among those who took lively interest in the study of drugs. But along with these it