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Commentary

Snake-o-Pathy or Snakebite Syndrome

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Rabies kills more than 20,000 people while snakebite kills more than 50,000 people in India,[1] still less attention is paid to snakebites. Why is snakebite not a public health problem? While discussing this issue, authors came to the conclusion that until some disease or "pathy" is associated with snakebite, it would not get prioritisation in the minds of health professionals and policy makers as rabies does, because in that case, we don't say dog-bite but rabies come to our mind immediately which is 100% fatal. We should be clear that the most important rule of nomenclature is that the name of a substance or a disease should be unambiguous. However, the term snakebite is ambiguous because it is associated with a range of health issues. After a long discussion, a name was suggested - "Snake-o-pathy" or Snakebite Syndrome, as many pathological conditions are associated with snakebite like haematopathy, neuropathy, cardiomyopathy, nephropathy, endocrine failure, etc. which lead to death, disability,[2] or psychological trauma. Even if the biting snake is non-venomous still, we have neurosis. In one of the studies by Singh AP et al., anxiety was the common symptom seen in 72% of patients after snakebites. It was found in both poisonous (venomous) and non-poisonous (non-venomous) bites.[3] therefore even if one doesn't get any harm from a snakebite still you have a 72% chance of getting anxiety and neurosis afterwards. Snakebite causes significant psychological morbidity,[4] now a well-known phenomenon.

Haematopathy is a common feature of viper bites[5] that are pre-dominant in the Indian sub-continent[6] and leads to severe bleeding or death and sometimes necrosis leading to amputation and kidney failure.[7] Neuropathy is especially associated with elapid snakes e.g., cobra and kraits. Debilitating paralysis[8] and even deaths[9] are common features associated with elapid bites if appropriate anti-venom treatment is not given timely. Cardiomyopathy[10] is another problem associated with elapids, especially cobra venom, and is sometimes fatal.[11] Cardiac manifestation and cerebral infarction have been reported due to Russell's viper bite.[12] Myocardial infarction has also been reported after snakebite.[13] Nephropathy is a common feature of many snakebite-induced injuries.[14] Snakebite can be attributed as the second most common cause of acute cortical necrosis.[15] Hypotension and multi-organ failure has also been reported after snakebite in India.[16] Clinical renal manifestations due to snake bites in Asia include proteinuria, haematuria, pigmenturia,

and renal failure.[17] Endocrine failure[18] is another feature of Snake Bite Envenomation (SBE). Endocrine dysfunction may include acute hypopituitarism, Central Diabetes Insipidus (CDI) or sometimes hyperglycaemia, adrenal disorders, etc. and sometimes patients who survive snakebite may develop chronic hypopituitarism.[19] Finally, the cost of treatment[20] for snakebites pushes many families into poverty and debt.[21]

There is no organ left that is not affected by SBE and still, snakebite is not associated with any disease or pathy and is simply understood as a bite. Our endeavour is to relate snakebites with diseases that are associated with SBE, and hence we named this phenomenon simply "Snake-o-pathy" meaning pathology associated with snakebites. Once a disease is associated with snakebite, it is certainly going to get more attention than calling snakebite just a bite. Snakebite can cause "Snake-o-pathy" or "Snakebite Syndrome" which needs to be popularised as a "syndrome" with many pathies that need to be identified and treated.

As we are aware that around 81,000 to 138,000 people die each year because of snake bites, and around three times as many amputations and other permanent disabilities are caused by snakebites annually. However, 5.4 million people are bitten by snakes and are in constant fear of death.[22] Even the family members are under a lot of stress. Therefore, an appropriate focus is required at the international level also.

Such nomenclature of snakebite as Snakebite syndrome or Snake-o-pathy would be more helpful to the scientific community and policymakers in order to give priority to research and programme formulation at the national and international level for effective prevention and control of the problem.

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