



# Please Release Me...

This could well be the plea of such patients who undergo great pain and want euthanasia. Though the SC has asked the centre's response to a PIL seeking this right, remember that this disease is often treatable

**A** Supreme Court bench of Chief Justice SA Bobde, Justices BR Gavai and Surya Kant has sought the centre's response to a PIL seeking the right to passive euthanasia for persons afflicted with rabies which is accompanied by extreme trauma and pain not mitigated by medicine.

This follows a March 9, 2018, verdict in which a five-judge Constitution bench had ruled that the right to life includes the right to die and legalised passive euthanasia by allowing the creation of a "living will". This could provide terminally ill patients or those in a persistent vegetative state—with no hope of recovery—a dignified exit by refusing medical treatment or a life support system.

A person can write a "living will" when in a sound state of mind. Demanding recognition of the right to die with dignity to be made available to rabies patients, an NGO, All Creatures Great and Small, said the apex court judgment of 2018 did not envisage a situation where death is inevitable even after treatment. The whole appeal is based on the fact that rabies is 100 percent fatal and the person ends up with terminal suffering.

There are two types of treatment for rabies. One is palliative therapy which



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typically includes liberal administration of sedatives, tranquilisers and analgesics in a quiet environment for relieving the suffering. If this treatment is adopted, all terminal suffering will have to be included in the euthanasia list.

The other treatment is an aggressive approach and involves supportive care and a combination of experimental immunotherapy, antiviral therapy and neuroprotective therapy. This is based

#### ONCE BITTEN TWICE SHY

A man demanding action against street dogs attacking people. A substantial number of dog bites lead to deaths due to rabies

on the assumption that on rare occasions, patients with rabies have survived after aggressive treatment in critical care units, including in India.

Aggressive treatment involves a combination of supportive care and the off-

## One bite too many

Uptodate.com, a clinical resource tool for physicians and patients, contains information about various dog bites and recovery of the patient. Patients known to survive less than six months have been excluded. A sequelae, incidentally, is a condition which is the consequence of a previous disease or injury. The outcomes include complete recovery, mild sequelae (includes inability to speak properly, inability to walk properly and changed muscle tone), moderate sequelae (weakness in both legs) and severe sequelae (weakness in all four limbs and no speech).

Country	Year	Age, Gender of patient	Dog Bites	Treatment	Outcome
India	2010	8/M	Dog bite	Post-exposure vaccination and rabies immunoglobulin	Severe sequelae (remained alive five years after acute illness)
India	2011	17/M	Dog bite	Post-exposure vaccination	Severe sequelae
South Africa	2012	4/M	Dog bite	Post-exposure vaccination	Severe sequelae
Chile	2013	25/M	Dog bite	Post-exposure vaccination (one dose)	Moderate sequelae
India	2014	16/M	Dog bite	Post-exposure vaccination	Severe sequelae
India	2014	6/M	Dog bite	Post-exposure vaccination and equine rabies immune globulin	Severe sequelae
India	2014	13/M	Dog bite	Post-exposure vaccination	Severe sequelae
India	2015	10/M	Dog bite	Post-exposure vaccination	Unknown
India	2015	18/F	Dog bite	Post-exposure vaccination and equine rabies immune globulin	Mild sequelae
India	2016	5/F	Dog bite	Post-exposure vaccination	Severe sequelae
India	2017	26/M	Dog bite	Post-exposure vaccination	Moderate sequelae
India	2017	9/M	Dog bite	Post-exposure vaccination and equine rabies immune globulin	Mild sequelae
India	2017	4/M	Dog bite	Post-exposure vaccination and equine rabies immune globulin	Severe sequelae
India	2017	3/F	Dog bite	Post-exposure vaccination	Moderate sequelae
India	2017	5/F	Dog bite	Post-exposure vaccination and human rabies immune globulin	Severe sequelae

label use (drugs used for an unapproved indication) of available therapies which may have some benefit.

Another disease which was once considered 100 percent fatal was HIV. However, with advancements in medicine, we can now achieve undetectable and non-transmissible status. In 1985, AIDS was called Anal Induced Death Sentence. Hepatitis C was also consid-

ered non-curable, but this is not so now. Most incurable cancers are also now manageable or curable.

Supportive care in critical care units was the most important factor for the survival of all suffering from rabies, including a 15-year-old girl in Wisconsin, US, who did not receive the rabies vaccine. Like a therapeutic approach to cancer, HIV infection and chronic hepa-

titis C virus infection, a combination of therapies may be the best chance of success in treating rabies. This involves combining different therapeutic treatments—immunotherapy, antiviral therapy and neuroprotective.

Immunotherapy with either the rabies vaccine or human rabies immune globulin (HRIG) is controversial. All but one patient received one or more



The SC bench of (clockwise from above left) Chief Justice SA Bobde and Justices BR Gavai and Surya Kant has sought the centre's response to a PIL seeking the right to passive euthanasia for persons afflicted with rabies. The whole appeal is based on the fact that rabies is 100 percent fatal and the person ends up with terminal suffering.



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#### PREVENTION AND CONTROL

The incidence of rabies in the population of street dogs is pretty high in India and sterilising and vaccinating them against rabies is a good method to solve the problem

doses of the vaccine before the onset of symptoms.

The vaccine can be administered if the patient has not received a complete course of post-exposure prophylaxis (given to prevent a disease).

The use of HRIG in conjunction with a strategy to enhance drug delivery into the central nervous system (e.g., osmotic agents or ultrasound waves) may be beneficial. An aggressive treatment approach includes the use of one or more antiviral agents with the goal of reducing viral spread to uninfected cells. Three agents (interferon-alfa, ribavirin and amantadine) have been used in the treatment of adults with rabies.

**T**herapeutic (induced) brain hypothermia (targeted temperature management), administered with either a cooling helmet or intranasal cooling, could be considered as a potential adjunctive therapy for rabies in order to slow progression of the disease, reduce neuronal injury, and provide time for the development of an immune response. Therapeutic coma, which involves the administration of high-dose aesthetic agents, has also been used as a neuroprotective therapy.

As per a report of National Health Profile 2018, there were 4,370 rabies deaths in India in 2016. This was one-third of worldwide rabies deaths at 13,340. Due to the small number of such deaths in advanced countries, they are not willing to put in money for research. Therefore, India has to take a lead here.

If euthanasia is allowed in such cases, all research will stop. The future lies in research with newer drugs, “nosodes” therapy of homoeopathy (remedy either directly from the bacteria or virus) and “bhasma” therapy of ayurveda. The final argument is that rabies is not 100 percent fatal and can be treated. ■

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