

LETTER TO THE EDITOR

ANIMAL USE IN MEDICAL RESEARCH

Sir,

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The use of animals in research is much debated but, consensus regarding stopping or continuing it has not yet been arrived at. Some points should be deliberated before advocating for or against animal experimentation.

1. Progress in the biomedical knowledge is greatly dependent on experiments conducted on laboratory animals. However, the usage of laboratory animals must conform to the ethical concept of humane treatment and, should be justified from the point of view of scientific advancement, contributing to the amelioration of human and animal diseases, and increasing the understanding of the potentialities of life (1).

2. Though an attempt is being made to use tissue culture techniques to study the functioning of living cells, e.g. study of hepatocytes to reveal functioning of liver, however the hepatic tissue culture and effect of drug on that may not reflect the effect of a drug on hepatobiliary system. This is primarily because cell communication cannot be taken into consideration in tissue culture system. Therefore, *in vitro* study cannot be a substitute for experimentation in the intact *in vivo* (2).

3. The techniques of *in vivo* genetic manipulation will allow research workers

to study directly the functions of genes *in vivo*, which had been previously impossible or was dependent on rare spontaneous mutations. Such experiments are needed for understanding the genetic diseases and have great potential in gene therapy. However, they can be conducted only *in vivo* (3).

4. The major advances in medical science could not have occurred without experiments in animals. The development of vaccines, the discovery of antibiotics, hormones and vitamins, and the introduction of organ transplantation are some examples (4).

Does the animal experimentation infringe the right of animals? Animal activists have been raising the issue of right to live. However, the subject of rights and duties are essentially human concepts that may not apply as such to other living beings. If we try to confer this right on animals, then there should be other consideration. Does the right of a lion to eat zebra take precedence over right of the zebra to not to be eaten? How about bacterias causing infections in humans? Do trees or lions or zebra have any duties at all?

Finally what are the ethics in case of animals that are used as food, work force, races and even games?

It is well accepted that animal experimentation is an activity with a considerable ethical content. Any such activity must inevitably be subject to some restraints, care and concern. Thus, where there is no universally accepted code of behaviour, there cannot be effective

customary sanctions or restraints. Legislation becomes the only effective means of control. However, such legislation must be sensible workable and scrupulously observed at all times, and there must be public confidence as well (5).

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