

**ETHICAL ISSUES AND RESEARCH AREAS IN AGADTANTRA WITH SPECIAL REFERENCE  
TO SUSHRUTA SAMHITA KALPSTHANAM**Vd. Samata Tomar\*<sup>1</sup> and Pravin Jawanjal<sup>2</sup><sup>1</sup>HOD, Agdatantra Dept. SGAM, Jamnagar, Gujarat Ayurved University, Jamnagar, Gujarat, India.<sup>2</sup>PhD Scholar. Dept. of Rasashastra and Bhaishajya Kalpana, IPGT&RA, Gujarat Ayurved University, Jamnagar, Gujarat, India.**\*Corresponding Author: Vd. Samata Tomar**

HOD, Agdatantra Dept. SGAM, Jamnagar, Gujarat Ayurved University, Jamnagar, Gujarat, India.

Article Received on 10/01/2019

Article Revised on 30/01/2019

Article Accepted on 21/02/2019

**ABSTRACT**

**Introduction:** The recent increase in research activities has led to concerns regarding ethical and legal issues. Various guidelines have been formulated by organizations and authorities, which serve as a guide to promote integrity, compliance and ethical standard as in the conduct of research. **Method:** Special Reference of sushruta samhita kalpsthana were searches for Ethical issues and research areas in Agadatantra. **Conclusion** Ethics education should help you to: – Understand the rules of professional behaviour, and the reasons for them. – Know your rights. – Meet your responsibilities.

**KEYWORDS:** Sushruta samhita kalpsthana, Agadatantra.**INTRODUCTION**

The recent increase in research activities has led to concerns regarding ethical and legal issues. Various guidelines have been formulated by organizations and authorities, which serve as a guide to promote integrity, compliance and ethical standard as in the conduct of research. The Declaration Of Helsinki, Belmonte Report, Council For International Organization Of Medical Sciences, World Health Organization Guidelines For Biomedical Research Involving Human Subjects, World Association Of Medical Editors Recommendations On Publication Ethics Policy, International Committee of Medical Journal Editors. CoSE White Paper, International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Good Clinical Practice; are some of important organizations which are regulating the research work of the world.

Issues related to the research participant: guided by mainly three rules as follows, 1. Respect for person- the requirement to acknowledge autonomy and protect those with diminished autonomy. 2. Beneficence. first do no harm, maximize possible benefits, and minimize possible harms 3. Justice- on individual and societal level.

Issues related to the researcher: it deals with most prominently seven issues as follows, 1. Legal issues pertaining to regulatory bodies. 2. Avoiding bias, inappropriate research methodology, incorrect reporting and inappropriate use of information. 3. Fraud in

research and publication. 4. Plagiarism and its checking. 5. Overlapping publications (duplicate and salami publications). 6. copyright. 7. Authorship and its various associations. All this issue are common to various fields of research. In Agadatantra, especially when patient is in emergency-informed consent is not possible “exception to informed consent” may allow the subject to be enrolled with prior permission of an ethical committee. Experimentation on animals is only permitted with three ‘R’ rules as follows, 1. Reduction 2. Refinement 3. Replacement.

**METHOD**

Special Reference of sushruta samhita kalpsthana were searches for Ethical issues and research areas in Agadatantra

**RESULTS**

Chapter wise areas of research and its ethical issues of Sushruta Kalpsthana

**Chapter 1 Annapaanvidhirakshakalpadhyaaya**

Verse 8-11 clearly mentioned the duties and responsibilities of the Royal physician. He should be well equipped and bearing knowledge of symptoms and treatment of all the poisons and methods of different poisoning. He should be appointed by the king, that is in today’s scenario should be selected through proper procedure of recruitment. Verse 17 - researcher should be attentive, alert and never be negligent. Today we have

that point included in medical negligence. Verse 18-24 He able to detect the poisonverse28-34 He can use the animals to detect the poison in foodstuffs, nowadays IEAC permission is needed Recipes mentioned in chapters as antidotes should be prepares and studied with IEC permission. Pharmacological studies of the recipes should be done. Verse 44-75 -Experimental studies to confirm the effects of the treatments of poisoning of different media may be carried out, with consideration of all the research formalities in today's era.

### Chapter 2 Sthavarvishvidyaniam

Verse 4,5, 6,,7-11 literature research to find out if anyone else before or after sushruta has classified the sources and types of inanimate poisons, for such type of work authentic sources of books and manuscripts has to be reviewed critically. Verse 25-33, 50-52, 54 dushivisha a special field of interest should be studied with chronic toxicity model of animal experiments. Studies could be planned on different aspects of poisoning by inanimate objects, and on dushivisa poisoning, their features, complications and treatments. 5, 6 Biochemical study of fifty five inanimate poisons 18-23 scrutiny of ten properties of the bulb poisons.

### Chapter 3 Jangamvishvidyaniam

Verse 3-5 an experimental study could very well planned to test the sixteen locations of poison in the bodies of venomous animals.6 chemical warfare poisoning,7-10 water poisoning, 2-12 soil poisoning, 13-15 food and fodder poisoning, 16,17 atmosphere poisoning earlier books be consulted to find out the earliest mention of such things and the drugs used for the management of such situations, verse 7-10, 10-12, 13-15, 16-17 should be investigated experimentally and biochemically.

### Chapter 4 Sarpadamshtavishvighyanadhyayay

Historical and comparative study of the 80 types of terrestrial snakes and their classification into 5 groups and on other matters in relation to snake poisoning should be done. Four types of snake bites, factors making snake bites less poisonous or in effective, and age and other factors in relation to snake bites should be interest of immunologist. The features of snakebites in animal and birds could be of interest to the experimentalist.

### 5-chapter Sarpadamshtavishchikitsitaadhyayay

Concepts of management of snake bite, rat poisoning, arrow poisoning, insect bite as given, could be carried out. A pharmacological and experimental research and then perhaps clinical usefulness of the antipoisonous recipe described in this chapter could be carried out. Appropriate investigations on the utility of antivenomous collyrium, and snuffs are indicated. Use of tourniquet, and other local measures of treatment for snake bite poisoning such as sucking, excision, cauterization, may be valid even today; their importance in the books on relevant facts should be emphasized history of medicine. This chapter would be of interest to the toxicologist, pharmacologist and institutions concerned with the

making and use of antisnake venoms. They might be able to salvage out some recipes or measures of treatment from this may be of practical use today, may be, in some modified form. 6-chapter dundundhubhis waniyaa dhyaaya Concepts of poisoning of masses and further their treatment by sounds emitted from drums with antivenoms or antipoisonous medicinal paste applied to them as given in this chapter may interest an environmentalist and epidemiologist too. Pharmacological, experimental, biochemical, clinical study of four great antipoisonous recipes a, mahasugandhi agada, ksharagada, kalyanaka ghritam, amruta ghrut described in this chapter are worth looking.

### 7-chapter mushikkalpam

Description of hydrophobia, 18 types of rats, experimental trials could be planned on the different types of rat's bites and their management. Recipes mentioned for hydrophobia might be worth giving an experimental trial and later, if necessary, pharmacological and biochemical evaluation before clinical assessment.

### 8. chapter kitkalpadhyaay

This chapter is of great interest to the entomologist, pharmacologist, toxicologists, immunologist for further work. Mythological origin of spiders might excite the curiosity of the orientalist and the Indologist. Vector borne diseases are the burning problems of today's medical field. Due to drug resistance, no effective drug available, so recipes in this chapter may help to find the solution.

Agadatantra also include heavy metal toxicity and household poisoning. Ethics and etiquettes are different in various fields of researches, but still follows certain rules specific to all research fields. In literature research, plagiarism is the main concerned. In animal experiment guidelines (area, cages, feed, temperature, handling, transportation, breeding, monitoring and alternatives) for setting up of proper animal house has to be followed. For research laboratories, all types of research require specific area and specialized instruments, equipment's, technicians, assistants, chemicals, reagents and many other things without which, no research is possible. Research needs experts in many fields and exchange of thoughts is required to proceed the activity interdisciplinary approach.<sup>[1]</sup>

### DISCUSSION

Agadatantra Research Ethics Covers Many Areas – For use of human subjects in research–Informed consent, IRB oversight is must. For use of animals in research–Appropriate care and use, IACUC oversight. Moral debates still persist in Stem cell research, impact of technology (nuclear weapons, genetic screening), etc. On animals and humans. Further Professional issues may arise like Authorship, IP rights, confidentiality, etc.so for Avoiding Ethical Dilemmas one should be ethically educated, he should Know the rules. – How are

researchers supposed to behave? – Who says so? Etc. Such queries should be solved out. Researcher should know his rights and responsibilities. Conflicts of Co-authorship– Ownership of intellectual property rights., Conflicts of interest– Etc. He should take steps to avoid conflicts in his research group. – Or resolve them quickly with minimal discomfort. Always Learn from others' mistakes. Ethics Education Scientific integrity training is now required in many areas of the sciences.

Plagiarism– Plagiarism is the use of others 'published and unpublished ideas or intellectual property without attribution or permission and presenting them as new and original rather than derived from an existing source., Conflict of interest, use of human subjects in research, Handling of allegations of misconduct in research, Ownership of intellectual property– Privacy of computer accounts, and Sexual harassment are all disputed points of ethics.

Many scientific journals impose ethical requirements on authors: like– Release of data to other scientists, Compliance with NIH animal care guidelines, IRB approval for experiments. on human subjects, Avoiding duplicate publication. Allocation of Credit- there are two forms of crediting a paper, Co-authorship and Acknowledgments. last usually the key positions., Rule of thumb: – Co-author should have made direct and substantial contributions to the work (not necessarily to the writing.), Co-authors share responsibility for the scientific integrity of the paper. Penalties may be applied by the researcher. People who made contributions that don't merit co-authorship may (sometimes must) be acknowledged elsewhere in the paper. But it's good manners, and costs nothing.

Acknowledge People Who. – Contribute a good idea or coin a useful term– Provide pointers to papers for the bibliography Help with debugging some tricky code– Help with typesetting or illustrations– Provide significant resources, e.g., loan of equipment, tissue samples, etc. Also acknowledge funding agency. But plagiarism can be easily avoided: by giving the citation.

Citation Etiquette- Cite other people's work freely and often: – Avoid antagonizing your reviewers by failing to acknowledge their contributions.

Issue #3: Responsibilities of a Reviewer 1. Do your fair share of reviewing.

2. Promptly return the manuscript if you are not qualified to review it. 3. Judge quality objectively– With due regard to scientific standards, but– With respect for the intellectual independence of the authors. 4. Avoid potential conflicts of interest.

Either decline to review the manuscript, or fully disclose the conflict to the editor.

– In some cases, it may be appropriate to submit a signed review, to prevent any accusation of bias. 7. Provide

adequate support for your judgments, *including citation:*  
**Research Fraud** Painting mice with a magic marker to fake the results of a genetic experiment. (True case.) Fabricating some missing data points in order to complete a study in time for a deadline.

**Failure to Disclose** Disclosure of potential conflicts of interest is always a good idea. It's insurance against accusations of misconduct. Failure to disclose may lead to: – An appearance of impropriety– Jail time (e.g., for violating disclosure requirements in a stock offering.)

**Talking to the Public** In general, scientists should not announce discoveries to the public before they have undergone peer review. – Fleishman and Pons “cold fusion” case.

Deliberately avoiding peer review for personal gain may constitute professional misconduct.

**Etiquette** Praise good behaviour in public. Criticize bad behaviour (e.g., failure to cite) in private. If public criticism is necessary, stick to objective facts. Personal attacks are never appropriate.

**Dealing with Problems** Get your advisor's advice. If you have a problem with your advisor, discuss it with him or her before seeking outside opinions. If necessary, speak confidentially with some other senior scientist whose opinions you respect. Sometimes misunderstandings or unhappy situations can be cleaned up through mediation by a third party.

**Handling Misconduct** Handle allegations of misconduct with as much confidentiality as possible. – People's careers are at stake. – Remember that there are two sides to every story.<sup>[2]</sup>

## CONCLUSION

Ethics education should help you to: – Understand the rules of professional behaviour, and the reasons for them. – Know your rights. – Meet your responsibilities. Most basic rule of all: – Don't do anything that would embarrass you if people found out about it. So, in Agadanttra research, we can apply all this ethical issue as their science is universal. for the Worldwide acceptance of Ayurveda, one has to follow thesis guidelines and make great contributions to AYURVEDA.

## REFERENCES

1. *Sushruta Samhita Kalpsthnam*. Edited by Ambicadutta shastri 12edition, Chaukhamba Sanskrit bhavan, 2001; 1.
2. Indian Council of Medical Research book of ICMR, Guidelines for preparing Standard Operating Procedures (SOP) for Institutional Ethics Committee for Human Research, Course VIII, Block 1 Unit3 Publication Ethics.