CHAPTER VII
CONCLUSIONS
PART-I. EPIDEMIOLOGY
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I. EPIDEMIOLOGY:

1. Rabies antibodies were detected in stray unvaccinated dog population in serum samples collected from rabies endemic area. However cerebrospinal fluid did not reveal rabies antibodies by complement fixation and gel diffusion tests.

2. Rabies virus antigen was not found in brains and salivary glands of stray unvaccinated dogs by mouse inoculation, complement fixation and gel diffusion techniques.

3. One stray dog, whose bite to another dog resulted in clinical rabies and death, was observed for 302 days for isolation of virus in saliva and presence of antibodies in serum. Virus could not be isolated from saliva before death or from brain, salivary gland or brown interscapular fat after death. Serum did not reveal presence of rabies antibodies.

4. Pet dog population showed detectable level of antibodies in their sera indicating that pet dog owners are regular in prophylactic antirabic vaccine schedule and there is almost no danger of exposure to rabies due to pet dogs particularly to pet dog owners, handlers and persons in contact of pet dogs. Therefore it can be concluded that pet dogs play little or no role in epidemiology of rabies.

5. Rabies antibodies were detected in human population in serum samples collected from persons reporting for
antirabic treatment... by complement fixation and gel diffusion tests, in an endemic area.

6. The incidence of dog bite in males is higher, about 3.6 times more than females. Children accounted for maximum bite as a group, followed by young (13 to 24 years) and adults (25 to 45 years) constituting about 90 per cent of bites in these three groups. Aged, old and infants all together accounted for the rest 10 per cent.

7. The highest rate of dog bite was observed in month of May, followed by March, October, February and June.

8. The factors and/or the situations responsible for causing dog bite in human beings are, visiting unknown locality, teasing the dog, going out for work, going to school, cycle accidents, playing, handling pups and pet dogs.

9. The dog bites received by individuals were classified and class I bites were maximum (84.26 per cent) and class II bites were only 15.74 per cent. No class III bite was seen.

10. Persons received dog bites on extremities (legs and hand) most frequently in 94.2 per cent of cases. The other parts of the body on which dog bites are reported are abdomen, back, head and face.

11. Persons taking antirabic treatment do not complete full course. 88.65 per cent people took seven to 13 inoculations, indicating that there is a high defaulter rate
and at the same time a belief in theory that seven inoculations are sufficient in cases of class I bite. Only 11 per cent of the people took less than seven inoculations, whereas only two out of 572 people completed the full course of 14 inoculations.

12. Looking to the size of the population of city of Ahmedabad, persons reporting for ART appears small. Therefore it can be concluded that there is under-reporting of dog bite cases.
CHAPTER VII

CONCLUSIONS

PART II. DIAGNOSTIC METHODS
II. DIAGNOSTIC METHODS:

1. In rapid diagnosis of rabies, the examination of impression smears by Sells's stain is of limited value. A negative result has to be confirmed by either direct FAT or direct IP.

2. Wherever there is availability of a fluorescent microscope, Direct FAT can be used, but direct IP is found to be equally specific and sensitive and looking to its advantages it can replace direct FAT.

3. In paraffin sections, all the three methods used; Eosin-phosphotungstic acid method of Massignani and Malferri, direct FAT and direct IP were found equally sensitive, specific and having comparable efficiency, and any one of the methods can be used. However mouse inoculation remains the confirmatory test in rabies for obvious reasons that no chances are taken in this disease.

4. PCA reaction in guinea pigs was carried out with different antigens by using horse, guinea pig, rabbit and dog антиrabies sera. Horse and guinea pig antirabies serum gave unsatisfactory results. Rabbit and dog sera gave good results.

5. At serial two fold dilutions of the sera when tested against each antigen, rabbit and dog sera gave good results at 1:2 and 1:4 dilution.

6. PCA reaction can be used as a diagnostic test but studies involving large number of field samples and using of different concentrations of virus is necessary to establish its specificity and sensitivity beyond doubt.
Proforma for Collection of Human Sera for Rabies Antibodies

Place: Civil Hospital, Ahmedabad.

Date: 

1. Name of Patient:
   Class of bite: I / II / III
   Place of bite: 

2. Age: Sex: Male/Female Occupation:
   Educational background:

3. Area of residence:

4. Previous Vaccination history:

5. Course completed / not completed:

6. Number of inoculations taken:

7. Any special remarks:
   (a) Provocation
   (b) Animal can be Traced?
   (c) Whether suspected rabid?
   (d) Reasons for bite.
   (e) Organ bitten.
Proforma of Sera Collection for Rabies Antibodies from Pet Dogs

1. Name of owner: [Name]  Name of Veterinary: Madalpur/Hospital Prem-Darvaja.

2. Sex: M / F / P  Age: Y, M.  Breed: 

3. Vaccination History:
   (a) Vaccinated before: 6 months / One year / Two years / above 2 years.
   (b) Date / month / year of last vaccination.
   (c) Not vaccinated at all.
   (d) Reasons for (c) if any: Knowledge / availability of vaccine / any other.

4. Veterinary check-up and any other remarks: Vaccine