

## SYLVATIC FOCUS OF TRICHINIASIS IN BANDAR ABBAS AREA SOUTH OF IRAN\*

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### ABSTRACT

In 1969 and 1976, 237 rodents and carnivores collected from the South of Iran were examined for *Trichinella spiralis*. 23% of foxes, 25% of stray dogs and all three captured golden jackals were found to be infected.

### INTRODUCTION

*Trichinella* was reported from wild boars (*Sus scrofa*), jungle cats (*Felis chaus*) and brown bears (*Ursus arctos*) in the Northern part of Iran, <sup>1,2</sup> from golden jackals (*canis aureous*) in North,<sup>3</sup> Isfahan,<sup>4</sup> and South West<sup>5</sup> and from red foxes (*Vulpes vulpes*) in North East and Isfahan.<sup>4</sup>

Also it has been seen among the Hyena captured in Isfahan<sup>4</sup> and South East.<sup>5</sup> Infection has not been reported from domestic pig, rodent and shrews. One suspected human case has so far been reported.<sup>6</sup>

### MATERIAL AND METHOD

The rodents were captured by snap traps and carnivores by hunting. The muscle tissue was cut in a very thin layer compressed

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between microscope slides and cleared with glacial acetic acid as discussed before.<sup>3</sup>

## RESULT

23% of 17 foxes and 25% of 12 stray dogs and all three of the hunted golden jackals were found to be infected. Infection rarely was found among carnivores captured in the Gulf coast. In stray dogs infection was found among three dogs living in a herd.

Infection was not found among 204 rodents including 140 *Gerbilus nanus*, 33 *Apodemus demitiatus*, 13 *Tatera indica*, 8 *Nesokia indica*, 3 *Mus musculus*, 2 *Rattus rattus*, 2 *Calomyscus bailwardi*, 2 *Meriones libycus*, 1 *Meriones persicus*.

## DISCUSSION

The incidence of infection is high among foxes and it has been reported in about 10%, 18.9%, 11% to 13% in Russia, Europe and Iran respectively.

As the map indicates most infected animals occur to the central part of Iran, far from the Persian Gulf. Large colonies of *Gerbilus nanus* which occur in the sandy hills along the Gulf could probably constitute the major food source of foxes near the Persian Gulf during the whole year, while aquatic food is also available for foxes living across the Persian Gulf. Ample prey in this area prevent the wild predators from carrion eating so they have little chance of being exposed to the infested meal.

While in the central area, because of food scarcity the carnivores become more scavenger and carrion eaters rather than real predator animals. This way of life increases the incidence of trichinella among them (3).

During the present study all three hunted golden jackals were found to be infected. Golden jackals occur in the bushes which the wild boar inhabit. It is believed that the infected carrions of wild boar are an important source of infection among them.

All three infected dogs were collected in one place, indicating they were accidentally exposed to an infected carrion.

The present study as well as the other studies<sup>2,3</sup> indicate that rodent does not play an important role in maintaining sylvatic cycle in nature.

## REFERENCES

1. Afshar, A., Jahfarzadeh, Z. (1967) Trichinosis in Iran. Ann. Trop. Med. Parasitol. 61:349-351.
2. Mobedi, I., Arfaa, F., Madadi, H., Movafagh, K. (1973) Sylvatic focus of Trichiniasis in the Caspian Region, Northern Iran. Am. J. Trop. Med. Hyg. 22(6), 720-722.
3. Mobedi, I., Hamidi, A.N. (1977) Sylvatic Focus of Trichiniasis in North Eastern Iran. Iranian J. Publ. Hlth. In press.
4. Sadighian, A., Arfaa, F., Movafagh, K. (1973) *Trichinella spiralis* in carnivores and rodents in Isfahan. Iran. J. Parasit. 59:986.
5. Massoud, J. (1976) Trichinellosis in Carnivores in Iran. International Conference on Trichinellosis, August 1976, Poznan, Poland.
6. Moin, M. (1966) First report of Trichinosis in human in Iran. J. Med., Teheran Univ. Med. Sch., 5:259-267. (In Persian)
7. Ivchenko, N.S., Skevareva, R.G. (1975) *Trichinella*, *Echinococcus granulosis* and *E. multilocularis* infections in mammals of Magadan Region, U.S.S.R. Meditsinskaye Parasitologiya i Parazitarnye Bolzni, 44(1) 105-106.
8. Steel, J.H., Arambulo, P.V. (1975) Trichinosis: A World Problem with extensive sylvatic reservoirs. Int. J. Zool. 2(2), 55-75.

MAP OF BANDAR ABBAS AND MINAB AREAS, SOUTH IRAN

