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AGALACTIAE DISEASE AND IT'S GEOGRAPHICAL DISTRIBUTION IN SHEEP AND GOATS IN IRAN

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Summary

Four hundred and ninety samples of sheep and goats milk were collected and subjected to procedures for isolation and identification of M. agalactiae. Ninety six isolates were biochemically identified as M. agalactiae of which only twenty three were confirmed by serological tests(3).

This investigation revealed the disease to be enzootic in most parts of Iran and the cause of economic losses. Vaccination programs and treatment of affected animals as well as taking the sanitary measures into account have been recommended for the control of the disease.

Introduction

Borry and Entessar (1) reported the presence of agalactiae disease in sheep and goats in Iran for the first time. Beharsefat. M and Yamini. B (2) prepared a killed vaccine with local strains that was used in the field. Aarabi and Sotoodehnia (3) reported the typing of twenty three strains of **Mycoplasma agalactiae** isolated from different parts of Iran.

This communication deals with the geographical distribution of the agalactiae disease in sheep and goats throughout the country.

Materials and Methods

Samples and tests:

Clinical reports plus samples of milk from sheep and goats suspected of agalactiae disease were received at the Razi Institute. These samples had been collected from different parts of Iran to determine the affected flocks and pastures through the isolation of **M. agalactiae** in culture. The compositon of the transport medium has previously been described (3). Samples

were cultured in P.P.L.O broth and agar. Subcultures were made at three-day intervals in the same media without antibiotic to eliminate the bacterial L form colonies. The growth of cultures was initiated and maintained under aerobic conditions at 37°c. Positive cultures were checked for purity and then freeze dried.

Carbohydrate fermentation tests were made for identification of isolated strains. Twenty three isolates were sent to Central Diagnostic Laboratory in Australia for confirmation. They were proved to be **M.agalactiae** (3).

Results

Totally, four hundred ninety samples of sheep and goats milk were tested of which ninety six were positive for **M.agalactiae.**

The geographical distribution is depicted in the Figure. The disease has been found to be widespread in most provinces of Iran. The acquired data indicated the disease to be enzootic in the north west including Eastern Azarbaijan and Zanjan, in the west Bakhtaran and Loristan, in the south Khousistan and Fars, in the centre Isfahan and Yazd and Semnan and in the east Khorasan.

EPIDEMIOLOGY:

This contagious disease is often reported during spring and summer seasons from sheep and goats. Morbidity rates in sheep and goats are almost the same and mortalities rarely occur. Clinical reports gave evidence to the existence of either one or more typical signs of the disease such as fever, mastitis, arthritis, conjunctivitis, keratitis and, on rare occasions, abortions in pregnant animals.

PREVENTION AND TREATMENT:

At the present, the disease is controlled by the vaccination of animals with a formolized vaccine which is prepared at the Razi Institute. In sick animals Tylosin is the drug of choice and is recommended and administered as an effective treatment.

Conclusions

This survey confirmed the existence and showed the geographical distribution of the agalactiae disease throughout the co-

untry. Laboratory tests indicated that the disease was enzootic in Iran particularely in regions where sheep and goats are intensively raised.

Despite the clinical diagnostic reports from some provinces, we couldn't succeed to isolate the **Mycoplasma** from the received samples. This failure could probably have been due to the improper conditions of collection and shipment of milk samples.

At present time, vaccination programs and treatment of sick animals are the ultimate means which are applied to control the disease.

The number of isolates of M.agalactiae from samples received from different provinces of the country.

Names of Provinces	Numbers of samples	Positive cases
Bakhtaran	34	4
Central	49	18
Eastern Azarbaijan	27	5
Eelam	3	—
Fars	164	34
Gorgan and Gonbad	2	—
Isfahan	11	1
Kerman	7	—
Khorasan	52	9
Khuzistan	28	3
Kordistan	4	—
Loristan	34	2
Semnan	35	10
Sistan and Baluchistan	13	—
Yazd	7	2
Zanjan	20	8

References

. Borry, G. et Entessar, F. Etude sur l'agalaxie des chevre et des moutens. Arch. nst. Razi. 15, 45-61 (1963).

. Baharsefat, M. et Yamini, B. **Mycoplasma agalactiae.** IV-Immunisation contre agalactiae contagieuse des ovins et des caprins. Arch. Inst. Razi. 23, 107-111 1971).

. Aarabi, I. and Sotoodehnia, A. Isolation and carbohydrate fermentation tests of **lycoplasma agalactiae** and **Mycoplasma mycoides subsp. Mycoides** strains in Iran, rch. Inst. Razi. 34, 35, 67-70 (1984).

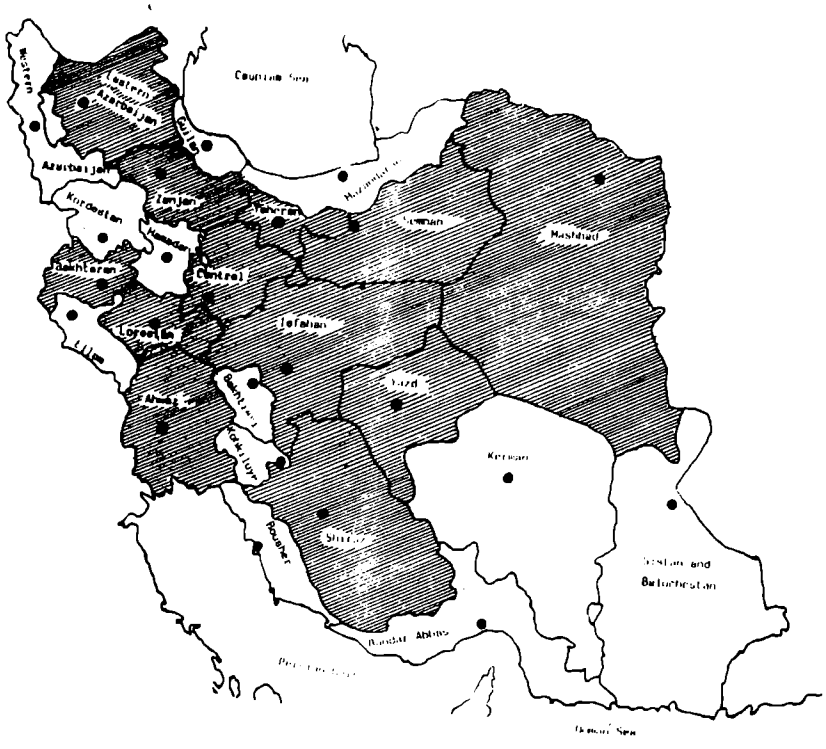

Fig. Map of Iran

Dark colour shows the distribution of agalactiae disease throughout the country.