

Epidemiological Feature of Anthrax in Khorasan Province of Iran during March 1992 to March 2005

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Anthrax is a per-acute zoonotic infectious disease caused by the spore-forming bacterium *Bacillus anthracis*. Anthrax most commonly occurs in warm-blooded animals, but can also infect humans and may cause to death of both. Anthrax has great economic importance to the livestock industries. The disease has virtually been eliminated from Europe and the North of America; however it has remained endemic in Iran and the surrounding countries.

The disease was first confirmed in domestic animals of Iran in 1905. Vaccination against anthrax has been started since 20 years ago and effectively reduced animal mortality. In the current decades, Animal anthrax has had severe economic consequences.

In this survey, animal and human foci of anthrax were studied during March 1992 to March 2005 as well as incidence and mortality of the disease, in Khorasan province. Khorasan is located in the north east of Iran, covering an area of 313,335 sq.km, which is the largest province of the country and includes one fifth of its area. A total of 231 human cases of anthrax have been reported in these 13 years, which is almost two times of the animal foci (123) of the disease. The disease had been reported from 24 cities of Khorasan. Three groups of cities were identified as infected areas, which are situated beside each other geographically.

The sex, age, and occupational distribution of the human patients were determined as well as the place of the cutaneous lesions. In this study, 60% of cases were male, 24% farmer, and 34% were more than 50 years old.

Animal disease incidence was low during 1992 to 1993 (5-7 cases each year), but there was a noticeable increase of cases in 1993 and 1995 (22 and 16 respectively), the number of cases decreased afterwards. The animal vaccination program, which is completely been done in this province every year, is summarized and discussed.

Human anthrax cases were low in 1992-1993 but they increased from 1994 so that 30 human cases reported during 1998 to 2001 each year and decreased again from 2002 to 2005.