Trichinella Infection in Wildlife of Northeast of Iran

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ABSTRACT

Background: The objective of this investigation was to detect the presence of Trichinella in some carnivores of Mashhad in northeast of Iran and to identify Trichinella species circulating in this area.

Methods: The present study was carried out using muscle tissue collected from 120 stray dogs, 26 wild boars, 25 rodents, two foxes and two hyenas captured in Mashhad City, province of Khorasan Razavi, Iran.

Results: Trichinella larvae were detected in three stray dogs by artificial digestion and compression. All larvae were identified as T. britovi using multiplex PCR.

Conclusion: This is the first report of identification of T. britovi in stray dog in Iran.

Keywords: Trichinella britovi, Epidemiology, Carnivores, Iran

Introduction

Trichinellosis is one of the most important foodborne parasitic zoonoses caused by ingestion of undercooked meat harboring parasites of the genus Trichinella. Infection by Trichinella spp. has been detected in domestic and wild animals throughout the world, with the exception of Antarctica, where there is no record of the parasite (1-3). The genus Trichinella consists of 12 species that all of them are genetically and biologically delineated into two distinct clade characterized by the presence or absence of an intramuscular collagen capsule (4). Human trichinellosis outbreaks occur in many parts of the world, and it has been estimated that as many as 11 million people are infected with this parasite (5). Global distribution of Trichinella in conjunction with varying cultural eat-