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A national surveillance study by identification and RFLP genetic characterization of *Mycobacterium bovis* strains in Iran



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ABSTRACT

Introduction: In the early 1930s when Tehran Veterinary College – the first modern Iranian veterinary school – was established, the existence of bovine tuberculosis (BTB) in Persian cattle had already been reported by French scientists. Small-scale test-and-slaughter control plans have been employed since then by private and State veterinarians, mostly concentrated in cattle farms of the capital city of Tehran and its suburbs. It was in the 1960s when these discrete operations were scaled up and turned into the present-day national scheme.

Materials and methods: Since 2000, in addition to the traditional bacterial culture, genotyping (e.g., RFLP, spoligotyping and MIRU-VNTR typing) has been employed on a relatively large number of *Mycobacterium bovis* isolates from across Iran. The present work concentrates on RFLP findings using two markers of PGRS and DR. Altogether, 17 RFLP patterns (identified mutually by either of the two markers) have been found in Iran.

Results and discussion: The pattern representing the *M. bovis* BCG strain, so-called “BCG-like”, is the commonest type being found almost everywhere in the country. Some of the remaining patterns, however, seem to have been geographically isolated over time. What is the current trend in the population of *M. bovis* in Iran? Are the localization of strains or expansion of them being observed? How extensive is the impact of veterinary measures in this context? These are some of the major questions that authors of this work have tried to raise.

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