

عنوان مقاله:

Identification of *Sarcocystis* spp. in Hamburgers Distributed in Fouman City, North of Iran Using Dab Smear and Digestion Methods

محل انتشار:

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خلاصه مقاله:

Introduction: Human infection with *Sarcocystis* species can be attributed to the consumption of raw or inadequately cooked meat, such as hamburgers, containing encapsulated parasites. **Materials and Methods:** This cross-sectional study was conducted between April and September ۲۰۲۲ in Fouman, Iran. A total of ۱۸۲ hamburger samples, comprising two types of traditional hamburgers and industrial hamburgers, were collected. **Result:** Out of ۱۸۲ hamburger samples of different types, ۳۴% of them were found to be infected with *Sarcocystis* spp. The infection rate within industrial and traditional hamburgers was ۲۱.۵% and ۵۶%, respectively. Notably, a statistically significant difference was observed between *Sarcocystis*-infested traditional and industrial hamburgers ($p < ۰.۰۵$). Among the two distinct groups of ۱۸۲ hamburgers, the microscopic digestion method revealed the presence of *Sarcocystis* bradyzoites in all ۵۱ infected traditional beef burgers and ۱۹ positive industrial beef burgers. However, in the dab smear method, just ۳۳ and ۱۲ positive samples were respectively identified in traditional and industrial beef burgers and a statistically significant difference was observed between efficiency of these two methods ($p < ۰.۰۵$). Infection with macroscopic parasite cysts was not observed in any of hamburger samples. Similarly, no statistically significant association was identified between the meat content percentage and the infection rate in industrial hamburgers ($p > ۰.۰۵$). **Conclusion:** Considering the high abundance of *Sarcocystis* micro cysts in frozen raw hamburgers, it is recommended to fully cook this food product and avoid consumption when only partially cooked.

کلمات کلیدی:

Sarcocystis, Digestion, Hamburger, Fouman City, Iran

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