To the editor — Aan die redakteur

Mycobacterium spp. in naturally infected game meat and organs

I read the recent publication on Mycobacterium spp. in naturally infected game meat and organs with a great interest. Van der Merwe and Michel studied several food preparation processes and concluded that ‘…these processes will kill Mycobacterium bovis but the unexpected recovery of non-tuberculous mycobacteria suggests possible survival and resistance characteristics of these strains which might be of veterinary public health interest.’ (p. 166) I would like to discuss this work. The question is about controlling the process of the food preparation. Proper management to prevent the food-borne disease in this case needs to be addressed. The suggestion to avoid eating those meats might be possible but this is at variance with general practice in the local population. A study to find a proper food preparation technique to destroy the pathogen is called for. Indeed, the size and volume of the meat might affect the ability of cooking process to destroy the pathogen. Van der Merwe and Michel did not assess this factor in their article. Future work on this specific topic would be interesting.

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A reply to the letter of Professor Viroj Wiwanitkit

The valued comments from Prof. Wiwanitkit echo the self-criticism of the authors on the topic. The study aimed to investigate the survival potential of M. bovis in dried meat. The most effective or ideal food preparation method was not discussed but was recommended for further study. It must be emphasised, however, that no pathogens – only non-tuberculous mycobacteria – were isolated from the processed samples.

In the opinion of the authors, the size and volume of the samples affected the ability of the processes to destroy the pathogen. A study to investigate different processes is, therefore, currently in the proposal phase (focusing on food density, temperature, exposure time and Aw) to test this hypothesis.

Biltong is a dry food with a high Aw (according to taste) preferred by some consumers. Carpaccio is raw, thinly sliced game meat and this undercooked game fillet is served in many local restaurants and lodges. Such foods are a delicacy in South Africa and avoidance of it, especially in a protein-deficient continent, is therefore rightfully correctly perceived to be unacceptable.

Prof. Wiwanitkit is advised to obtain a previous publication, namely that of M Van Der Merwe, J L Bekker, P Van Der Merwe and A L Michel on ‘Cooking and drying as effective mechanisms in limiting the zoonotic effect of Mycobacterium bovis in beef’ (Journal of the South African Veterinary Association (2009) 80: 142–145). In that study, the survival of M. bovis was investigated in spiked approved beef and, alarmingly enough, it survived the cooking and drying processes.

We would like to invite Prof. Wiwanitkit to contact me personally to discuss future work.

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