Call for Cases of Pythiosis – an emerging fungal-like disease in Hong Kong

Dear Colleagues,

We have observed cases of pythiosis in cats and dogs in Hong Kong recently.

*Pythium insidiosum* is an unusual, predominantly water-borne organism (oomycete), that is related to fungi and algae. It is resistant to treatment because it lacks ergosterol, the target of most antifungal drugs, in its cell walls. South East Asia is a hot-spot for pythiosis, but the disease has not been previously reported in Hong Kong. Although pythiosis has been recognized as skin lesions (“swamp cancer”) in horses as far back as 1924 in Indonesia, it is currently regarded as an emerging infectious disease in Thailand in humans.

Pythiosis can present as localized skin, gut, nasal/facial, and rarely, disseminated disease. The route of entry of the infective form is skin or mucosa. There may be a history of skin trauma, or exposure to freshwater habitats. Infected animals are usually immunocompetent. Pythiosis is non-contagious.

The cutaneous form of disease has been diagnosed in dogs in Hong Kong (Figure 1), presenting as ulcerated, non-healing skin wounds with deep sinuses.

**Figure 1: Dog with cutaneous pythiosis**
In cats, peri-anal swellings and naso-facial disease has been seen, with regional lymph node swelling (Figure 2).

**Figure 2:** 4-month old male desexed kitten with peri-anal swellings (a, b) caused by *Pythium insidiosum* and having surgical debridement of residual masses after medical therapy.

We have had some success with treatment of feline cases using combinations of surgical reduction (Figure 3) and antifungal drugs (posaconazole and terbinafine), and/or antibiotics (doxycycline or minocycline and azithromycin).

We are interested to hear from other colleagues who have diagnosed cases of pythiosis and plan to publish a report to share information about the disease more widely with colleagues. Please contact Vanessa Barrs (feline medicine specialist) Vanessa.barrs@cityu.edu.hk (tel 5744 1968) or Jeanine.Sandy (pathologist) j.sandy@cityu.edu.hk.

Sincerely

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