Case 1: A 30 year old pregnant female presented with chronic haematuria without other symptoms. We received a urine sample from the urologist for cytolologic examination in which we found an adult mite, originally mistaken for pubis lice. On two consecutive urine samples from this patient we did not find any adult mites. On examination by her general practitioner no visible opalescent nits or live lice and blue macules at feeding sites were present.

Case 2: A 72 year old female presented with haematuria and dysuria. We received a urine sample for cytologic examination in which we found single adult mite without inflammation. We did not receive any further urine samples from this patient.

DISCUSSION
Mites belong to the order Acarina and are a kind of arthropod with only a few species known to affect humans. Mites in sputum specimens were first reported in 1944 by Carter et al. in Ceylon (1). The acaroid mite is a kind of arthropod and its geographic distribution appears to be global and mites can survive in many environments including the storehouse, farmhouse, stored food stuff, various drugs, packing material, household objects, and human and animal bodies. Its infection in human cause acariasis in some organs including the lung, intestines, and the urinary tract by inhalation, ingestion, and transmission through the skin (2-4). House dust mites can also cause asthma and extensive dermatitis to atopic ingestion, and transmission through the skin (2-4). House dust mites can also cause asthma and extensive dermatitis to atopic
pellets contain digestive enzymes that can cause severe conditions such as asthma, allergic reaction, dermatitis, intestinal and urinary acariasis, and respiratory disorders (2,4,5).

Figure 1. Filter preparation of urine from case one showing blood, benign squamous cells, reactive urothelial cells, and adult mite with one pair of legs, jaw and palps at the front end, and lateral three pair of legs folded against the body (Papanicolaou stain X 400).

Figure 2. Filter preparation of urine from case 2 showing blood, much debris, benign squamous cells, and adult mite with two pairs of legs, jaw and palps at the front end, and lateral two pairs of legs partially folded against the body (Papanicolaou stain X 400).

A study in China found that the prevalence of human intestinal, respiratory and urinary acariasis (mite infection) was associated with occupation and was higher in individuals working with medicinal herbs, in store houses, in mills, or other sites where the density of mites was high (4). Nevertheless, mites can be found in cytologic samples as a contaminant from the environment, as we have observed in two cases of urine samples. In spite of their relative large size, mites are not commonly found in cytologic samples largely depends on the identification of the mite species.

We conclude that the microscopic object in each urine sample were house dust mites that were contaminants because consecutive two urine samples from the first patient did not show any dust mite. One reason for house dust mites as a contaminant is the presence of house dust mites on clothing (10) and on skin (11) as evidenced by the presence of house dust mite allergens on these environments and thus may have been transferred into the urine specimens. In New Zealand 98% of house dust mites are *Dermatophagoides pteronyssinus* (12). They were first described in domestic homes in New Zealand in 1971 (13). New Zealand has some of the highest levels of house dust mite allergens in the world and this reflects the very high number of house dust mites in New Zealand domestic dwelling (14). The clinical significance of mites in cytologic samples largely depends on the identification of the mite species.

CONCLUSION
In our study, in the first case the mite was *Euroglyphus maynei* and the second being of the *Dermatophagoides* species (which was identified by an experienced house dust mite expert but he was unable to determine whether it was *D. pteronyssinus* or *D. farinae*). To avoid contamination of urine specimens sterile specimen containers should be used when sampling and the container should be kept closed until ready for examination.

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