The problem of melamine tainted milk products (MTMP) has drawn a lot of public attention. It started after the Chinese media reported, in early September, that the Sanlu brand infant formula produced by the Hebei-based Group was contaminated with melamine. The urinary stones, discovered after taking these contaminated milk products, led to a major clinical problem. These patients require expert medical care from specialists of the Paediatric, Radiology and Urology disciplines.

From the preliminary experience of the affected infants, these stones could be of various sizes. We still rely on ultrasonography as the main diagnostic tool. The treatment plan implemented in the Mainland has already been posted on the WHO web site (http://www.who.int/foodsafety/fs_management/infos an_events/en/index3.html).This could be used as a good reference before the local treatment guideline is ready for use. In the management of this clinical entity, we still rely on our general urological treatment principle. Small stones which do not have complications are managed conservatively in the initial phase. The patient is advised to stop taking contaminated milk products, increase fluid intake or fluid infusion and correct abnormal biochemical parameters, if any. Mainland specialists found from various sources that most of these “stones” are in fact soft, loose and sand-like. They are very likely to be passed out with urine. Urological intervention should be the treatment of choice if medical treatment is not effective, especially when there is significant obstruction to the urinary system. The most employed minimally invasive treatment of choice is cystoscopy and retrograde catheterisation (C&R) of the obstructed ureter. This includes cystoscopic guided catheterisation of the ureter with catheter. Manipulation of the obstructing stone/sand with the ureteric catheter could be able to loosen the obstructing stone and subsequent passage of the fragments. The obstructed urine should be able to pass out after the obstruction has been relieved. Stenting of the ureter with double j catheter may be needed if the obstruction could not be entirely resolved only with manipulation. Percutaneous kidney drainage may rarely be needed if the above approach fails. Big stones with no significant obstruction will be followed up and reviewed at regular intervals.

This disease is a new entity to us. The clinical course of this stone disease remains unclear. We still could not decide, at this juncture, whether early interventions for definitive stone treatment are better than conservative approach. Procedures like Percutaneous stone removal, or in selected cases, with Extracorporeal Shock Wave Lithotripsy (ESWL) have been tried with success. If we choose to wait, how long should we wait before we decide that conservative treatment has failed? Will these stones be able to be dissolved with conservative measures, or grow in size with time? We probably need further follow ups and observations for that.

From the statistics of the Hospital Authority, an average of 6 new cases of renal stones in the paediatric age group (kids less then 12 years old) are reported each year. At the time of writing, there are 8 suspected cases of Melamine Tainted milk products-related renal stone reported to the Centre for Health Protection (CHP) in Hong Kong. We expect a few more are coming. However, most of these cases are just having uncomplicated stones and are on conservative treatment now. The question is whether these cases are genuine Melamine renal stones or are we just picking up all those incidental renal stones from the paediatric community by this massive screening? Unless we could detect significant amounts of melamine in their stone specimen, we couldn’t be able to confirm that their stone disease is caused by melamine contamination. We need to be very careful about that.

With those calcified and radio-opaque renal stones among these cases, one may treat it as if they are treating the urinary stone diseases they encounter in their everyday practice before. Initial metabolic screening, conservative treatment or followed by extracorporeal shock (ESWL, Fig.1) for the small ones; Percutaneous removal (PCNL, Fig. 2) for the large ones; Ureteroscopy for the obstructed ureteric stones (URSL, Fig.3) and cystoscopic removal/lithotripsy for the bladder stones (Fig. 4) etc. All these methods have already been proven to be feasible and effective in expert hands for our Paediatric patients.

Last but not the least, I would like to look more on the positive side of this story. With more public awareness on renal stone disease and on stone prevention methods, hopefully we would be able to decrease the incidence of renal stones. Then we could at least be partly relieved on our daily workload in public urology clinics and wards, which are already much overcrowded!