Management of Molluscum Contagiosum in Children

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Molluscum contagiosum (MC) is one of the commonest cutaneous viral infections in children. It is caused by common pox DNA virus with an incubation period of two to eight weeks.1 Molluscum contagiosum is spread by direct skin contact, autoinoculation and fornites. It may affect any part of the body. The common sites of infection are axillae, trunk, upper limbs and face. Although MC can occur at any age, it is most common in young children. Peri-orbital and facial lesions are particularly difficult to treat.

The presenting symptoms of peri-orbital or facial MC in young children are usually noticed by parents with asymptomatic visible skin or pearl colored lumps. Lesions vary in size from 1mm to 5mm. Occasionally, lesions more than 5mm can occur in children with impaired cellular immunity. While most MC is symptom free, approximately one-third of infected young children may have symptoms secondary from infection, pruritus, erythema and rarely pain. ‘Molluscum dermatitis’ is a term to describe the eczematous skin eruption adjacent to MC. It is present in approximately 10% of cases and may be associated with atopic eczema. Molluscum dermatitis usually settles spontaneously once MC is treated and resolved.2 Peri-ocular MC infection may be associated with conjunctival infection causing toxic conjunctivitis. Although ocular infection is rare and seldom causes structural damage, urgent referral to an ophthalmologist is a must when conjunctival involvement with toxic conjunctivitis is suspected.3

In most circumstances, the diagnosis of MC is based upon the clinical features as the virus has not been successfully cultured in vitro. Discrete, dome-shaped umbilicated waxy papules with a small central punctum are the typical clinical features of MC. Rarely, biopsy is required and typical histology shows hyperplastic epidermal cells with prominent basophilic intracytoplastic inclusion bodies. Clinically, these homogenous inclusion bodies can be demonstrated by smearing the cheesy contents from a lesion after curettage onto a slide and staining with Gram stain to confirm the diagnosis.4 Milia, verrucae, Spitz nevi and skin tags are the main differential diagnoses of MC.

Before going to discuss the treatment options, the prevention of further transmission is one of the important aspects of public health issue and in preventing relapse. In fact, there was observation of high incidence of MC infection in children exposed to swimming pool and the report of outbreaks in public swimming pools.5 In addition, the spread of lesions is found to be enhanced by warm bath. Therefore, the importance of transmission through water should not be underestimated. In the management plan, advice should be given to parents that young child should take shower rather than warm bath and must not share bath with other siblings or children to prevent further transmission or autoinoculation.

Concerning treatment, a wide variety of topical treatments which cause tissue destruction have been reported to have some success in treating MC including tretinoin cream, trichloracetic acid, silver nitrate and cantharadin.6, 7 Topical imiquimod, an immune response modifier, has been reported to be successful in treating MC. Its mechanism of action is different from the above-mentioned topical treatment and is through the stimulation of T helper cell Type 1 immune response via the activation of cell surface pathogen recognition receptors. Physical treatment depends on tissue ablation including curettage, cryotherapy, CO2 laser and electrodesiccation have been used with success. However, manipulating sharp or destructive instruments around young child’s eye is dangerous and should be avoided.

As almost all MC infection is self-limiting in children, the treatment plan should be individualised to every single family. I stress on the whole family but not the child alone because we need to take care the physical and psychological aspects of both child and parents. Considerations should include the extent and duration of the lesions, the symptoms caused by the lesions and the ability of the parents and the child to tolerate and comply with the treatment option. Realistic expectations regarding the potential side effects from treatment, treatment failure and relapse should be discussed with the whole family before laying down any treatment plan. Close monitoring is one conservative option if the lesions do not cause any symptom or there is no evidence of further spreading. However, in peri-orbital
MC, observation of conjunctival symptoms is a must and surgical removal under general anaesthesia may be necessary.

Molluscum contagiosum is one of the most common cutaneous viral infections in children. In most cases with asymptomatic peri-orbital lesions, apart from general advice on shower rather than hot bath to prevent further transmission, close observation is justified. However, the red herring signs should be clearly described to parents and remind them to bring their children for review once such signs occur. In my experience, if the lesions persist for more than one month, I would try 0.1% tretinoin cream or imiquimod cream for a few more months before surgical intervention.

References:

MCHK CME Programme Self-assessment Questions

Please read the article entitled "Management of Molluscum Contagiosum in Children" by Dr. Ka-keung Ho and complete the following self-assessment questions. Participants in the MCHK CME Programme will be awarded 1 CME point for answering the MCHK CME programme (for non-specialists) self-assessment questions.

Questions 1-10: Please answer T (True) or F (False)
1) Molluscum contagiosum is caused by common pox RNA virus.
2) Molluscum contagiosum has an incubation period of two to eight weeks.
3) Molluscum contagiosum can spread by sexual contact.
4) Molluscum contagiosum can be cured by cryotherapy or surgery.
5) Molluscum contagiosum may arise from outbreak in swimming pools.
6) Peri-orbital molluscum contagiosum should be referred for ophthalmological opinion in the first instance
7) Children with molluscum contagiosum should be advised to take shower rather than warm bath
8) Discrete, dome-shaped umbilicated nodules are diagnostic of molluscum contagiosum
9) Histological features of parakeratosis and vacuolar degeneration are typical of molluscum contagiosum
10) In difficult cases, viral culture may help to confirm the diagnosis of molluscum contagiosum.

ANSWER SHEET FOR NOVEMBER 2005

Please return the completed answer sheet to the Federation Secretariat on or before 30 November 2005. Answers to questions will be provided in the next issue of The Hong Kong Medical Diary.

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Answers to October 2005 issue

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