What is a Strawberry Hemangioma?

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A mother presented to clinic concerned that her baby developed "a red mark and bruising" on her cheek weeks after being born (Figure 1). The child is otherwise healthy. Diagnosis revealed that this child has a strawberry hemangioma, or hemangioma of infancy.

What is a strawberry hemangioma?

Hemangiomas are the most common tumours of infancy, and usually are medically insignificant, although the cosmetic concern is often an important issue with parents.

Thirty per cent of hemangiomas are present at birth. The other 70% of them appear in the first several weeks of life. Fifty per cent of hemangiomas complete involution by age 5, 70% by age 7, and 90% by age 9. Hemangiomas that take longer to involute have a higher incidence of permanent cutaneous changes that include scar formation, telangiectasia, or redundant skin.

How do I know that it is a hemangioma?

Hemangiomas are much more common in Caucasian infants (10% to 12%), and considerably less common in black (1.4%) and Asian (0.8%) infants. Females are more commonly affected than males (3:1), and hemangiomas are much more common in preterm infants weighing less than 1 kg (22% to 30%). Most cases are considered sporadic.

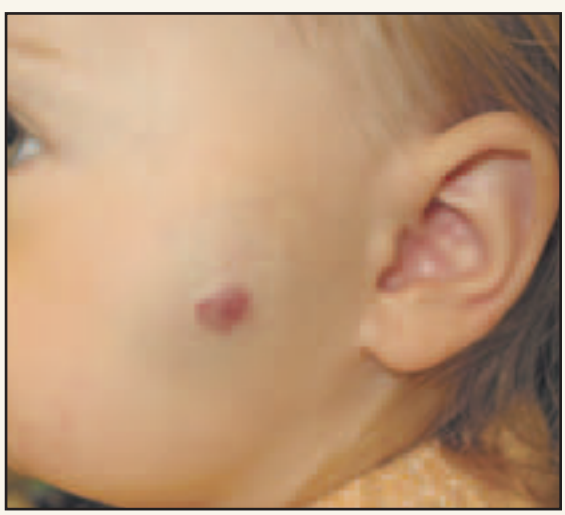


Figure 1. Left cheek strawberry hemangioma in an infant.

The earliest sign of a hemangioma is blanching of the involved skin, often followed by fine telangiectases and then a red macule. Rapid growth during the neonatal period is the hallmark of hemangiomas, occurring characteristically beyond the growth rate of the infant. During involution, the hemangioma shrinks centrifugally from the centre of the lesion. The

superficial lesions become less red, taking on a duskier purple color, and finally regaining normal flesh tones (often referred to as "graying"). With involution, the hemangiomas become softer and more compressible with decreased tenderness.

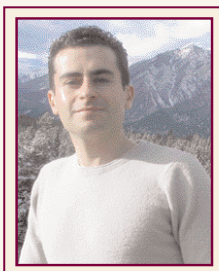
Radiographic investigation can include magnetic resonance imaging to delineate the location and extent of both cutaneous and extracutaneous hemangiomas, and to differentiate from other high-flow vascular lesions. Ultrasound is occasionally useful in differentiating hemangiomas from other deep dermal or subcutaneous structures, such as cysts or lymph nodes. Plain radiography is of some use for evaluating hemangiomas suspected of impinging on the airway. A carefully performed skin biopsy can be helpful in distinguishing unusual or atypical hemangiomas from other vascular lesions or neoplasms.

What treatments are available?

The best approach in the non-complicated patient is the "wait and see," and educate approach. The best cosmetic result is most often found when the hemangioma is allowed to resolve on its own without interference. Referral to a dermatologist or pediatric dermatologist is often beneficial in terms of education, investigation, and treatment.

In patients in whom hemangiomas are ulcerated, painful, or in a location that has significant psychological impact, lasers used by an experienced physician can hasten the resolution. Surgical excision of atrophic or hypertrophic skin, or of redundant skin is an option only in the involuting phase to improve cosmesis.

To reduce morbidity and mortality in complicated hemangiomas, oral (preferred) and intralesional corticosteroids are effective at decreasing the size of hemangiomas. Oral corticosteroids should be administered during the proliferative phase, as they have only a negligible effect on involuting hemangiomas. Because interferon alfa-2a works by a different mechanism, it can be used in lesions that are unresponsive to steroids, and in fact should only be used after steroid failure. Unlike steroids, interferon alfa-2a does not have to be administered during the proliferation phase to be effective. The onset of action is slower, however, usually requiring several weeks. This makes it less attractive for use in acute life- or sight-threatening situations.



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Papules on the Neck

An eight-year-old boy and his mother came into the clinic regarding papules that were developing on the boy's chest, upper arms, and neck (Figure 1). These papules were mildly pruritic, had been present for two months, and new papules were still appearing. There were no sick contacts, and the boy otherwise felt well.

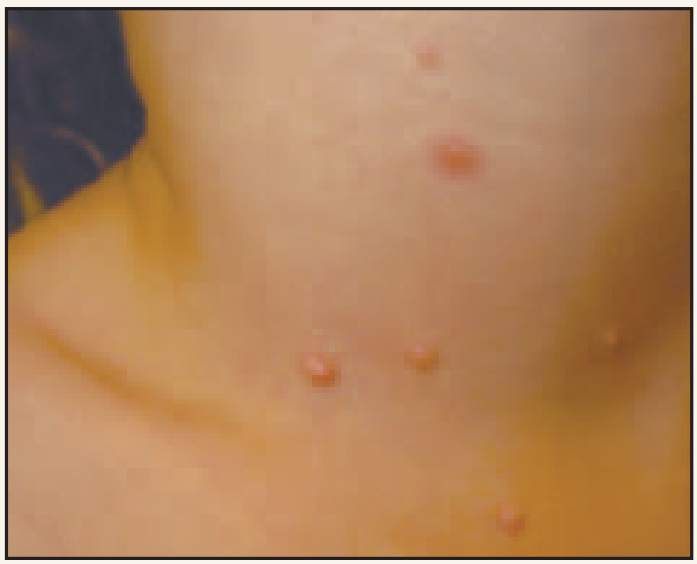

Figure 1. Multiple 2 mm to 4 mm slightly erythematous papules with central umbilication on the neck of a child.

What is your diagnosis?

This patient has Molluscum Contagiosum. This common condition is caused by the molluscum contagiosum virus (MCV), an unclassified member of the poxviridae family, which is a benign and generally self-limited viral infection. Skin lesions usually consist of multiple dome-shaped, pink to skin-colored papules 2 mm to 6 mm in diameter, of which some lesions show the classic feature of umbilication. MC is usually asymptomatic, although individual lesions may be tender or pruritic.

What's the cause?

MC is encountered most commonly in children who become infected through direct skin-to-skin contact, or indirect skin contact with fomites, as well as by auto-innoculation.

Lesions typically occur on the chest, arms, trunk, legs, and face. Mucous membrane involvement is quite rare, and palmoplantar skin is spared. Patients with atopic dermatitis are more prone to MC, and may develop large numbers of lesions. Approximately 10% of all patients will develop eczema around the lesions. In adults, MC is most commonly a sexually transmitted disease (STD), and presents as a few scattered lesions that are often limited to the perineum, genitalia, inner thighs, lower abdomen, or buttocks. MC in healthy children and adults is usually a self-limited disease, but may persist for several months to a few years. Widespread, persistent, and atypical MC may occur in patients who are significantly immunocompromised, or who have acquired immunodeficiency syndrome (AIDS) with low CD4 T-lymphocyte counts.

What is the main concern?

For the most part, the main concern is temporary adverse cosmetic results, and embarrassment. Most lesions resolve with no permanent residual skin defect, however, occasional lesions may produce a slightly depressed scar, especially if excoriated.

How is it diagnosed?

Diagnosis is usually clinical and based on the distinctive central umbilication of the dome-shaped papule. If diagnosis is uncertain, papules can be biopsied, which gives a classic histopathologic picture. Adult patients should be questioned about sexual history and, where appropriate, evaluated for other concomitant STDs. Always consider testing for HIV infection in patients with large or facial lesions.

Patients and their families should be educated as to the benign and self-limited nature of this condition, and that treatment is not a necessity.

Although treatment is not required, it can help reduce autoinoculation or transmission to close contacts, and improve clinical appearance. More than one treatment session is frequently required.

In healthy children, a major goal is to limit discomfort, and benign-neglect or minor direct trauma is appropriate. Older children can better tolerate cryotherapy or curettage (can pre-apply EMLA), which is very effective. For younger children, cantharidin applied carefully by a physician to the lesions, can be effective. The lesions should be taped over after the medication has been

applied. After 30 minutes to an hour, the tape should be removed and the lesions should be washed off. Similarly, tretinoin cream applied daily, only to the lesions (with a toothpick), can be used. More expensive, but very effective is Imiquimod, a new topical immune response modifier, which is a potent inducer of interferons.

In adults who are more motivated to have their lesions treated, cryotherapy or curettage of individual lesions is effective and well tolerated. In immunocompromised individuals, MC can be extensive and difficult to treat. The goal may be to treat the most troublesome lesions only, such as on the face. In severe cases, these patients may warrant more aggressive therapy with lasers, imiquimod, optimized HIV antiviral therapy, or a combination of approaches.

What's the prognosis?

Prognosis is generally excellent because the disease usually is benign and self-limited. In healthy patients, one to three treatments are usually effective. CME