Uncomplicated Cutaneous Infantile Strawberry Hemangioma: Educational Images and Evidence-Based Recommendation

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Abstract

Background: Uncomplicated cutaneous infantile strawberry hemangioma which is also called capillary hemangioma is a benign vascular anomaly that may be observed in 5% or more of infants. Small hemangiomas generally need no treatment because regress and disappear spontaneously, but slowly.

Patients and method: A girl with uncomplicated cutaneous infantile strawberry hemangioma was followed for about five years. The lesion which appeared during infancy as a small soft red swelling and was growing for few weeks, but started to regress thereafter. According the available evidence, the girl received no treatment.

Results: At about the age of five years, the lesion appeared to need another year or little more to eventually disappear. However, the family consulted a dermatologist who thought that oral propranolol should be used in her case as it has been increasingly considered as the standard treatment of infantile hemangioma. However, the parents were aware that propranolol is an antihypertensive drug and totally rejected the dermatologist opinion and consulted us again. As the family felt markedly disappointed, the decision was made to prescribe a safer evidence-based therapy which is 0.25% timolol maleate gel.

Conclusion: A practical lesson about the practice of evidence-based medicine is provided.

Introduction

Uncomplicated cutaneous infantile strawberry hemangioma which is also called capillary hemangioma is a benign vascular anomaly that may be observed in 5% or more of infants. It is a common skin lesion that appears during the neonatal period and early infancy as a growing red or blue soft swelling that began to regress spontaneously, but slowly within about four months. Small hemangiomas generally need no treatment because sometimes it disappear by two years, and approximately 60% of them disappear by 5 years, and 90-95% of the disappears by nine years [1-6].

Patients and method

A girl with uncomplicated cutaneous infantile strawberry hemangioma was followed for about five years. The lesion which appeared during infancy as a small soft red swelling and was growing for few weeks, but started to regress thereafter. Figure 1 shows the lesion before the age of one year. According the available evidence, the lesion appeared to need an other year or little more to eventually disappear (Figure 2).
However, the family consulted a dermatologist who thought that oral propranolol should be used in her case as it has been increasingly considered as the standard treatment of infantile hemangioma. However, the parents were aware that propranolol is an antihypertensive drug and totally rejected the dermatologist opinion and consulted us again.

In our consultation to the family, we explained to the family that we do agree that oral propranolol has been increasingly considered as the standard treatment of infantile hemangioma [5], but we strongly disagree that it is the appropriate treatment in their child.

We explained that it is impossible to ignore that the lesion is disappearing and the small risk associated with propranolol can not be accepted in her case. As the family felt markedly disappointed, the decision was made to prescribe evidence-based therapy that is safer than oral and topical propranolol, which is 0.25% timolol maleate gel [2-6].

Discussion

Kanada, et al. (2012) reported 594 infants in San Diego, California whom their skin was examined by child dermatologists during the first two days of life. They found that the most common vascular lesion was nevus simplex accounting for 83%; the second most common vascular lesion was infantile hemangioma accounting for 4.5% at the age of three months [2].

Chambers, et al. (2012) reported the treatment of non-vision-threatening peri-ocular infantile capillary hemangiomas (Mean ages of presentation 4.8 and 3.7 months) during the period from August 2007 to January 2011 with either twice daily topical 0.25% timolol maleate (a β-blocker) gel or observation for two months. Thirteen patients received timolol, and 10 children were observed without receiving treatment. Topical 0.25% timolol maleate gel was associated with good response in 8 of the 13 patients. Moderate response in 4 the 13 patients, while poor response was reported in only one patient. In patients who didn't receive any treatment, no patient experience good response, one patient experience moderate response, and nine patients experience poor response. The responses were consistent on follow-up for 3-41 months [3].

Semkova and Kazandjieva (2012) reported rather rapid complete regression of an early infantile hemangioma with topical timolol gel [4].

Püttgen K, et al. (2016) reported a multi-center retrospective study which included 731 patients with infantile hemangioma treated with topical ophthalmic timolol maleate. Most infantile hemangiomas were localized (80.1%) and superficial (55.3%). Treatment was given to 74.3% of the patients with aim of preventing disfigurement. Treatment was well-tolerated, safe and was not associated with cardiovascular side effects. The results of this study suggested the possible use of topical ophthalmic timolol maleate as an alternative to oral β-blockers [5].

Mashiah, et al. (2017) reported a retrospective study which included 63 patients having 75 infantile hemangiomas treated with topical propranolol 4% gel during the period from 2013 to 2015. 43 hemangiomas (57.3%) experience a good response to treatment, 19 hemangiomas (25.3%) experienced a partial response, and 13 hemangiomas experienced (17.33%) poor or no response. Therefore, hemangiomas 62 (82.6%) had...
good or partial response to topical propranolol 4% gel treatment. Two patients experienced minor local side effects including irritation, redness, and scaling of the treated area. Treatment was not associated with systemic side effects [6].

Conclusion
A practical lesson about the practice of evidence-based medicine is provided.

Conflict of interest: None.

References
3. Chambers CB, Katowitz WR, Katowitz JA, Binenbaum G. A controlled study of topical 0.25% timolol maleate gel for the treatment of cutaneous infantile capillary hemangiomas.