Thoughts on treatment of strawberry naevi

R. S. ILLINGWORTH

From the Department of Child Health, The University of Sheffield

Illingworth, R. S. (1976). *Archives of Disease in Childhood*, **51**, 138. **Thoughts on treatment of strawberry naevi.** Published reports on the treatment of large strawberry naevi have been reviewed. It is suggested that they should normally be left untreated, and that corticosteroids, given for a short period only, should be reserved for massive naevi close to the eye, or interfering with respiration or sucking, or associated with thrombocytopenia.

Serial colour photographs of one child illustrate the good result of inactivity.

There is still no unanimity about the treatment of strawberry naevi. It is a long time since Lister (1938) wrote his classic paper on their natural history. He concluded that 'no exception has been found to the rule that naevi which grow rapidly during the early months of life subsequently retrogress and disappear of their own accord on the average about the fifth year of life'. Bivings (1954), after 22 years' observation of 236 cases, considered that all strawberry naevi disappear, as do most spider naevi and most cavernous haemangiomas. Simpson (1959) studied the natural history of 170 cavernous haemangiomas in 140 children and concluded that they 'almost invariably undergo spontaneous resolution, more than half of them disappearing completely by the age of 5 years'. He suggested that the only real indication for treatment is interference with eyesight, breathing, or sucking by a cavernous haemangioma. It is not clear whether he refers entirely to the cavernous haemangioma, or whether he includes some strawberry naevi which are capillary haemangiomas. It is not always obvious which is which.

Margileth (1971) wrote that 'although spontaneous involution of the juvenile hemangioma was reported 82 years ago, and has been documented in nearly 2500 children by 20 authors, considerable controversy still exists regarding management. Unfortunately active therapy (surgery, x-ray, radium, cryotherapy, or injection of sclerosing solutions) is still advised. During 12 years our experience with 288 children with 427 vascular naevi has shown that very few (2%) angiomas require any type of active therapy and that children in whom those lesions were treated had more

complications than those managed conservatively.' He wrote that nuchal staining almost always disappears: more than half of spider naevi disappear, especially after puberty, and that either strawberry naevi or cavernous haemangiomas disappear, while portwine stains are permanent. In a previous paper (Margileth and Museles, 1965) surgery was advocated only for naevi exhibiting alarming growth, or those with thrombocytopenia (Kasabach-Merritt syndrome). Ulceration, haemorrhage, or infection was no indication for surgery.

Denis Browne (1960) rightly remarked that we do not know whether prompt treatment of a pin point naevus on the face would prevent its development into a large disfiguring deformity. Children are not born with large strawberry naevi. They begin a few days after birth as pin point naevi: some of them remain small, while some occasionally grow to a huge size and cause dreadful deformity. We have no means of predicting how much an individual naevus will grow. Margileth (1971) found that they frequently continue to grow in spite of surgery.

Few will agree with Andrews *et al.* (1957) who wrote that 'any haemangioma simplex on the face measuring 1 cm or more should be treated without delay'. Their observations were based on too short a period of study and follow-up.

The observation that some cavernous haemangiomas respond well to corticosteroid therapy (Zarem and Edgerton, 1967) has introduced a new risk: the corticosteroids may be used unnecessarily or for too long with the usual harmful side effects. I have seen one grossly stunted cushingoid child whose appalling condition was due to corticosteroid treatment for haemangioma. Zarem and Edgerton suggest prednisolone 40 mg every other day for a 3-week course, repeated if rebound growth occurred

once or twice, but no more. Fost and Esterly (1968) and Ravitch (1973) made similar recommendations. Fost and Esterly suggested that if there was no response within 2 weeks, treatment should be discontinued. It seems reasonable to suggest that corticosteroids should be given only for large haemangiomas around the face and neck (particu-

larly if the airway or the eye is involved), and possibly if there is thrombocytopenia. Otherwise large haemangiomas should be left to nature to cure.

It is my practice to tell mothers that the strawberry naevus will grow for up to 6 or perhaps 12 months but that thereafter it will gradually heal and disappear within 5 to 10 years. The same applies

Colour plates (a) and (b). The patient at age 3 months. (c) At age 4 years.

to the large cavernous ones. Nevertheless, I keep children under observation if they have a naevus at a mucocutaneous junction, because it is said that these are more likely than others to grow at an alarming speed.

It is my firm belief that unless there is a sudden rapid growth in a naevus, arousing the fear of malignant change, which is excessively rare, the correct approach to a strawberry naevus is to leave it alone. I have seen unsightly scars and even keloids resulting from surgical interference. Nature's cure is the best cure.

Colour plates a-c show one child whose large disfiguring haemangioma was left to nature. The parents were reassured but no treatment was given, and there is no residual mark.

I thank the Research Fund of the University of Sheffield for defraying the cost of the colour plates. Dr. Doris Fletcher saw my patient at intervals.

REFERENCES

- Andrews, G. C., Domonkos, A. N., Torres-Rodriguez, V. M., and Bembenista, J. K. (1957). Hemangiomas—treated and untreated. *Journal of the American Medical Association*, **165**, 1114.
- Bivings, L. (1954). Spontaneous regression of angiomas in children. 22 years' observation covering 236 cases. *Journal of Pediatrics*, **45**, 643.
- Browne, D. (1960). Natural history of cavernous haemangiomas. *Lancet*, **1**, 55.
- Fost, N. C., and Esterly, N. B. (1968). Successful treatment of juvenile hemangiomas with prednisone. *Journal of Pediatrics*, **72**, 351.
- Lister, W. A. (1938). The natural history of strawberry naevi. *Lancet*, **1**, 1429.
- Margileth, A. M. (1971). Developmental vascular abnormalities. *Pediatric Clinics of North America*, **18**, 773.
- Margileth, A. M., and Museles, M. (1965). Current concepts in diagnosis and management of congenital cutaneous hemangiomas. *Pediatrics*, **36**, 410.
- Ravitch, M. M. (1973). The non-operative treatment of surgical conditions in children. *Pediatrics*, **51**, 435.
- Simpson, J. R. (1959). Natural history of cavernous haemangiomas. *Lancet*, **2**, 1057.
- Zarem, H. A., and Edgerton, M. T. (1967). Induced resolution of cavernous hemangiomas following prednisolone therapy. *Plastic and Reconstructive Surgery*, **39**, 76.

Correspondence to Professor R. S. Illingworth, Department of Child Health, Children's Hospital, Sheffield.