Treatment of Haemangioma
by Oral Prednisone Therapy
A Preliminary Report on 9 Cases

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Received August 23, 1971

Summary. 9 patients affected by rapidly enlarging haemangiomas have been treated by oral prednisone administration.

Among these patients, 7 were females and 2 males. The age ranged from 45 days to 2 years. Haemangiomas were of the mixed “strawberry” and cavernous type (with the exception of 1 case which was of the deep cavernous type). The haemangiomas were localized in the face or in the parotid region in 7 cases, in the vulvar region in 1 case, and in the mammary region in 1 case (female).

Patients received prednisone dosages of 1.5 mg/kg daily for 3 days, then 1.0 mg/kg daily for the duration of 4 weeks in 5 cases. In 2 cases the duration was 3 weeks, and in 2 cases was 2 weeks. In 3 cases a second therapeutic course of 3 weeks was prescribed, from 3 to 1 months after the withdrawal of the first cycle.

In 4 cases significant reduction of the lesion was obtained within 2 weeks of treatment, and persisted after a follow-up period of 6 months (2 cases), 3 months (1 case) and 1 month (1 case). In 4 cases the lesions ceased to increase in size and remained static after follow-up periods of 3-4 months. In 1 case the lesion was still enlarging 1 month after the withdrawal of a 3 week therapeutic course.

Better results were obtained in younger patients (under 6 months of age) and in haemangiomas localized in the face or parotid region. No rebound effect was observed.

On the whole, these results can be considered as positive ones, and support the impression that, in particular cases of haemangioma, prednisone may be an effective means of therapy, allowing one to adopt a waiting attitude otherwise impossible in such cases.

Haemangiomas are frequently observed in infants, but, in spite of the great number of clinical researches on this subject, many problems concerning their aetiopathogenesis, classification, evolution and treatment are still to be clarified.

The types of haemangioma more frequently observed by the plastic surgeon are the cutaneous capillary haemangioma, generally termed the “strawberry naevus”, and the cavernous haemangioma both cutaneous and subcutaneous. “Strawberry” haemangiomas appear as bright red cutaneous swellings; histologically they consist of capillary haemangioma
patterns, among which solid masses of cells are present. These cells represent rests of the embryonal vasoformative tissue from which the vascular tree develops. Cavernous haemangiomas, in the “pure” form, are seen as compressible subcutaneous masses with the overlying skin showing a normal appearance, or a slight bluish discoloration. Histologically they present the typical well-known pattern.

More often the two forms above described are mixed together, a deep cavernous component and a superficial one of the “strawberry” type being observed.

Haemangiomas in which an embryonal vasoformative component is present are generally classified as “immature” (Pillsbury et al., 1957), or “unitissutal” (Rosselli, 1958) or “angioblastomas” (Gomez Orbaneja, 1968). They are usually either present at birth or first noted during the neonatal period. Their evolution is very capricious. One can consider their maximum time of growth from 3 to 6 months of life, and a spontaneous regression is frequently noticed. Generally it begins at about 12 months of age, and it can lead to a total disappearance of the lesion by the age of 5 years, although different percentages of regression have been given by various authors: Walter 96% (1953), Simpson 55% (1959), Bowers 49% (1960) Phelan 67% (1964), Andrews 16% (1957).

Indeed, the possibility of spontaneous regression must always be borne in mind, and supports the opinion of the Authors who follow a waiting attitude in the management of the lesion (Wallace, 1953; Lewis, 1957; Lampe and Latourette, 1959; Garcia-Perez, 1968; Matthews, 1968).

From the experience of our own School, there is no problem concerning the treatment of small angiomas localized in harmless sites, which can easily be treated either by sclerosing agents, cryotherapy, or surgical excision.

We also agree with those Authors who condemn the use of irradiation because of the severe damage which can arise from it, even when correctly performed (radionecrosis, radiodermatitis, arrest of growth in the irradiated regions, etc.).

Extensive and rapidly enlarging haemangiomas, especially those involving the face, present problems which are very difficult to solve. In such cases, indeed, the waiting attitude could be dangerous for the patient, and as Matthews has emphasized (1968), “all cavernous lesions should be treated during the first year of active growth”.

On the other hand, even when conservative management is not considered dangerous for the patient, the parents, and sometimes the general practitioner, will press for treatment, no matter of what type. Disfigurement, ulceration or fear of haemorrhage are usually the reasons for these urgent questions being raised.