

PDF hosted at the Radboud Repository of the Radboud University Nijmegen

The following full text is a publisher's version.

For additional information about this publication click this link.

<http://hdl.handle.net/2066/23979>

Please be advised that this information was generated on 2019-10-16 and may be subject to change.

MAIN TOPIC

P. N. M. A. Rieu · C. Festen

Hemangioma and vascular malformations**Editorial**

When dealing with vascular anomalies, either of the skin or elsewhere in the body, much confusion still exists in the medical world with respect to unequivocal terminology. It is the great merit of Mulliken, a plastic surgeon working at the Children's Hospital in Boston, to have formulated a "biological classification" that seems to be very useful for the practitioner [3]. In this classification hemangiomas are considered specific vascular endothelial-cell tumors of childhood that are separate from vascular malformations, which are congenital structural abnormalities of the blood vessels persisting throughout life, as extensively described in his book, *Vascular Birthmarks*. The term "hemangioma" is used exclusively for the well-known fast-growing, slowly-involuting vascular tumor of childhood that can be observed in approximately 10% of all children at the age of 1 year and always regresses before puberty [2]. This viewpoint is of great value to the clinician and elucidates a good deal of confusing terminology. Surgeons are still confused by their pathologists in reports on excised specimens or biopsies because of widespread use of the Enzinger classification of vascular tumors of soft tissue, which employs the word hemangioma in a totally different way [1]. In this Main Topic we attempt to summarize the state of the art of classification, diagnosis, treatment modalities, and prognosis of a very confusing but highly interesting field of pathology in infancy and childhood.

The first paper by Enjolras and Mulliken again highlights the "biological classification", based on the clinical behavior of the different vascular anomalies and supported by basic research from studies done in the past by Mulliken et al. [3]. It discusses modern diagnostic tools as well as current ideas about the management of the subgroups of vascular malformations and hemangiomas. The authors stem from two centers in the United States and Europe where extensive experience in this field has been gained during the last 10 years.

To gain insight into the vascular anomalies that pass through an average University Hospital, a retrospective study was performed by Zwerver et al. that shows the difficulties of varying diagnoses and divergent diagnostic work-ups and treatment, caused partly by the low incidence of the lesions seen by each discipline. The authors plead for the formation of multidisciplinary work groups in order to provide patients with the benefits of universal terminology, diagnostic protocols, and treatment plans.

The next three papers deal with current treatment options, beginning with laser therapy. Especially in centers where treatment and basic research go hand in hand, realistic possibilities for laser treatment of subgroups of hemangiomas and vascular malformations are crystallizing. The large selection of different types of lasers offered by manufacturers and the growing demand of the public for noninvasive treatment suitable for children necessitates a critical approach, which is described in this paper by van der Horst et al. Sclerotherapy and embolization techniques, mainly performed by interventional radiologists, are described by Herbreteau et al. for cervicocephalic vascular malformations, which form the largest group compared to other body areas. This work is based on a large experience in the field originally developed by Riché and Merland in Paris. The last paper, by Hartman et al., concludes that there is still a place for surgical excision, but that it should be restricted to well-formulated indications.

A short overview is given with these five papers in order to emphasize that these vascular lesions deserve the earnest attention of each specialist working in the pediatric surgical field, with a plea for a multidisciplinary approach. The opinion of a specialist is often sought when parents are desperate because of confusing answers to their questions about diagnosis, prognosis, and treatment.

References

1. Enzinger FM (1995) Benign tumors and tumorlike lesions of blood vessels. In: Enzinger FM, Weiss SW (eds) *Soft tissue tumors*. CV Mosby, St. Louis, pp 579–626
2. Esterly NB (1995) Cutaneous hemangiomas, vascular stains and malformations, and associated syndromes. *Curr Probl Dermatol* 7: 67–107
3. Mulliken JB, Young AE (1988) *Vascular birthmarks. Hemangiomas and malformations*. WB Saunders, Philadelphia

P. N. M. A. Rieu · C. Festen (✉)

Department of Paediatric Surgery, University Hospital St. Radboud, Postbus 9101, NL-6500 HB Nijmegen, The Netherlands