

ASSESSMENT OF SOME TREATMENT OF HEAD AND NECK HAEMANGIOMAS

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INTRODUCTION

Haemangioma was originally Classified as a true neoplasm of blood vessels (Smith, 1959; Shira and Guernsey, 1965). However, pathologists consider haemangioma to be hamartomas or hamartomatous malformations (Mathews, 1968). Haemangiomas constitute the largest group of tumour or tumour-like malformations in childhood and mainly involve the head and neck (Bingham, 1979). Involution usually begins near the end of the first year or in the second year, but some tumours begin regressing later (Esterly, 1987). Surgery is the most frequently used method for the complete ablation of haemangiomas, especially in the localized small lesion which is easily demarcated from the

normal tissue (Anavi et al, 1988). In the more diffuse variety, the management poses many difficulties such as post-operative cosmetic deformity, the need for further reconstructive procedures and danger of injury of adjacent important structures. Among non-surgical treatment of haemangiomas are irradiation therapy, embolization, electro-coagulation, injection of sclerosing solutions and corticosteroid therapy (Woods and Tullumello, 1977 and Chin, 1983).

In this study we reviewed the treatment of 43 cases of head and neck haemangiomas treated during 1988-1991 at Mansoura University Hospital.

MATERIALS AND METHODS

Analysis was done for 43 cases of head and neck haemangiomas treated at E N T and General Surgery Departments, Mansoura University Hospital during the period of 1988-1991 inclusive. Their age was more than 2 years. They were 23 cases of cutaneous haemangiomas, 14 lip haemangiomas and 6 oropharyngeal haemangiomas. Injection sclero-therapy was applied to 29 cases using ethanolamine oleate as sclerosing agent which was injected in multiple sittings each with 2 ml of the solution followed by local compression for 5 minutes. A total course of 8 to 12 sittings in 4 - 6 weeks was needed to give satisfactory results.

In 14 cases the primary treatment was intra-lesional injection of corticosteroids, contraindications for steroid therapy were ruled out. Intra-lesional injection of sterile aqueous suspension of triamcinolone acetonide 40 mg/ml was injected twice weekly for three weeks.

Patients were followed up twice

weekly for signs of regression, as regards the size of haemangioma, whether is complete or partial, and for occurrence of any complications.

Seven cases of residual cutaneous haemangiomas were treated by surgical excision after incomplete regression induced by ethanolamine or steroid injection, their age was more than 6 years.

Statistical analysis has been carried out using Chi-squared with Yates's correction.

RESULTS

Forty three cases of head and neck haemangiomas were 24 females and 19 males. The age distribution, the sites and types of haemangiomas are shown in table (1). Table (2) reveals the treatment modalities and their outcome.

Sclero-therapy using ethanolamine injection was applied to 29 cases (Fig. 1,2&3) with complete regression of lesion in 72.4% and incomplete regression with a residual localized

haemangiomas were found in 27.6%.

Intra-lesional steroid injection in 14 cases (Fig. 4&5) gave complete regression in 57.14% of the cases with incomplete regression in 42.86%.

No significant difference between the two treatment modalities ($p > 0.05$).

No influence of the site of haemangioma was observed upon its regression (Table 3). However, intra-lesional steroid injection produced higher rates of regression with oropharyngeal haemangiomas. Incomplete regression was frequent with the more diffuse haemangiomas.

During the follow-up period, complications in the form of superficial ulcerations were observed at sites of injections in 7 patients; 4 after ethanolamine and 3 after steroid injection. Such ulcerations usually healed within 3 weeks with no residual stigmata.

Those with residual cutaneous

haemangiomas and aged sixty years or more were subjected to surgery with complete clearance of the lesion in all cases.

DISCUSSION

The choice of the optimal method of treatment of head and neck haemangiomas depends on the specific variety of haemangioma under consideration and may change with its precise extent, the age of the patient and the exact anatomical location of the lesion. Although surgery is the most frequently used method for complete ablation of haemangiomas, especially in localized small lesion (Hoehn et al. 1970, and Schrudde and Petrovici, 1981) and those with insignificant resolution by age of 6 years (Finn et al., 1983), injection sclero-therapy proved to be effective with complete regression of haemangiomas in 72.4% of our series. This result is coinciding with that of Persky (1986).

Ethanolamine injection results in immediate haemoglobin coagulation and intimal disruption. Initially, the lesion demonstrates a reactive in-

flammatory oedema which is followed by a slow resolution with subsequent fibrosis.

Steroids have been demonstrated to have dramatic effect on the induced regression of haemangiomas (Edgerton, 1976). The mechanism of action of steroid is unclear, but may be related to either an increase in vascular response to endogenous vasoconstrictive mediators (Zweifach et al., 1953) or increased arteriolar constriction and narrowing of precapillary sphincter (Wyman et al., 1953). One must rule out the presence of contraindications of steroids before starting such therapy in patients with head and neck haemangiomas.

In our series, intra-lesional injection of sterile aqueous suspension of triamcinolone acetonide 40 mg/ml resulted in satisfactory treatment in 57.14%. This result is more or less consistent with Zarem and Edgerton (1967).

Those cases with age above 6 years, with a residual localized haemangiomas after sclerotherapy or intra-lesional steroids were subjected to surgical treatment. Surgery was done satisfactorily especially after fibrosis and stabilization of the lesion induced by sclero-therapy which provided a greater opportunity for preservation of the surrounding normal tissue and improved cosmetic and functional results after age of 6 years (Persky, 1986).

Conclusion :

Ethanolamine and intra-lesional steroid injection are capable of producing a satisfactory therapeutic effect on head and neck haemangiomas and so, it should be tried as a first line of treatment in such cases even in small localized lesion and surgery should be reserved for persistent haemangiomatous involvement after 6 years especially after stabilization of these lesions by intra-lesional ethanolamine or steroid injection.

Summary

Forty three cases of head and neck haemangiomas were treated at Otorhinolaryngology and General Surgery Departments in Mansoura University

Hospital during the period of 1988 to 1991. They were 23 cases of cutaneous haemangiomas, 14 cases lip haemangiomas and 6 cases oropharyngeal haemangiomas. The adopted modalities of treatment were discussed including surgery, injection sclero-therapy using ethanolamine,

and intra-lesional steroid injection..

Ethanolamine and intra-lesional steroid injection are capable of producing a satisfactory therapeutic effect and should be tried as the first line of treatment in head and neck haemangiomas.

Table (1) : Demographic data of 43 cases of head and neck haemangiomas.

Age	2 - 5 years	20
	6 - 10 years	13
	11 - 20 years	7
	> 20 years	3
Sex	Males	19
	Females	24
Sites	Skin	23
	Lip	14
	Oropharynx	6
Types	Cavernous	38
	Capillary (Strawberry)	5

Table (2) : Treatment modalities and their outcome of 43 cases of head and neck haemangiomas.

Type of treatment	Regression			No.
	Complete	Incomplete	No regression	
Sclero-therapy	21 (72.41%)	8 (27.59%)	0	29
Intra-lesional steroids	8 (57.14%)	6 (42.86%)	0	14
Surgery following sclero & steroid therapy	7 (100%)	0	0	7

Table (3) : Treatment modalities of haemangiomas and their outcome at different sites.

Site	No.	Sclero-therapy			Sclero-therapy		
		No.	Regression		No.	Regression	
			Comp	Incomp		Comp	Incomp
Skin	23	17	12 70.6%	5 29.4%	6	3 50%	3 50%
Lip	14	10	8 80%	2 20%	4	2 50%	2 50%
Oropharynx	6	2	1 50%	1 50%	4	3 75%	1 25%
Total	43	29	21	8	14	8	6



Fig. (1) : Lip haemangioma-ethanolamine injection
1-a : Before injection.



Fig. (1) : Lip haemangioma-ethanolamine injection
1-b : After injection.

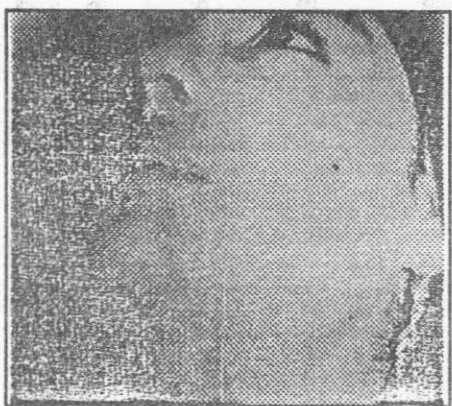


Fig. (2) : Cutaneous neck haemangioma-ethanolamine injection
2-a : Before injection.

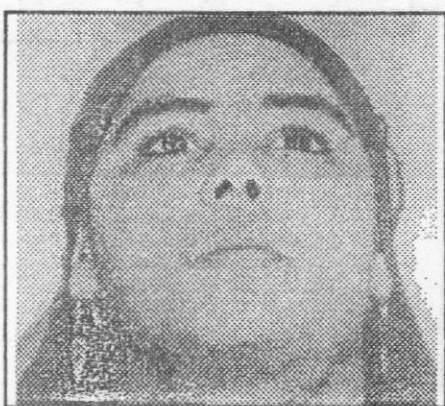


Fig. (2) : Cutaneous neck haemangioma-ethanolamine injection
2-b : After injection.



Fig. (3) : Nasal haemangioma-ethanolamine injection.
3-a : Before injection.



Fig. (3) : Oropharyngeal haemangioma-intralesional steroid injection
3-b : After injection.

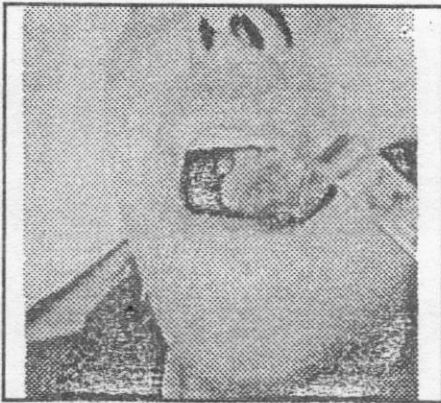


Fig. (4) : Oropharyngeal haemangioma-intralesional steroid injection
3-a : Before injection.

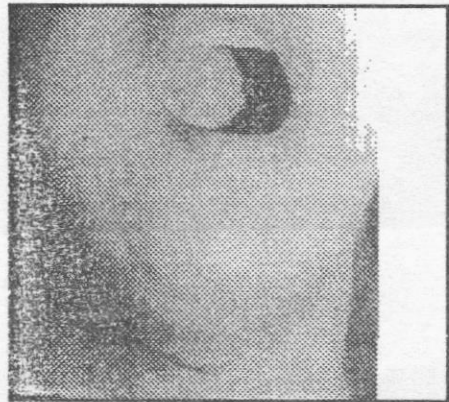


Fig. (4) : Oropharyngeal haemangioma-intralesional steroid injection
4-b : After injection.



Fig. (5) : Parotid haemangioma-
intralesional steroid in-
jection.
5-a : Before injection.



Fig. (5) : Parotid haemangioma-
intralesional steroid in-
jection.
5-b : Before injection.

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تقييم بعض طرق علاج الوحمة الدموية فى الرأس والرقبة

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د. محمد غنيم د. محمد فريد الشربينى

تناول هذا البحث ثلاثة وأربعين حالة وحة دموية فى الرأس والرقبة تم علاجهم بقسمى الأذن والأنف والحنجرة والجراحة العامة بمستشفى المنصورة الجامعى فى الفترة من ١٩٨٨ إلى ١٩٩١. وقد شملت ٣٣ حالة وحة بالجلد و ١٤ حالة وحة بالشفة و ٦ حالات وحة بالفم والبلعوم. وتضمنت الطرق الجراحية الحقن بالايثانولامين (٢٩ حالة) والحقن الموضعى بالمواد الاستيرودية (١٤ حالة) والعلاج الجراحى ٧ من حالات الوحمة غير تامة الانحسار بعد العلاج السابق.

وقد تبين أن للحقن بالايثانولامين وكذلك بالمواد الاستيرودية تأثير علاجى ناجح ولهذا يجب محاولة علاج الوحمة الدموية بالرأس والرقبة بهم أولاً.

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