ORIGINAL ARTICLE

The Outcome of Management of Hemangioma

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ABSTRACT

This prospective study is include 30 cases of hemangioma, presented to the department of oral and maxillofacial department in al kut city in the south of Iraq between 2013-2019.The age of these patients between 4year and 30 years divided to two groups ,4-10 years with mean age 8.5 years and the second 10-30 years with mean age 15.6 years. The treatment include injection of sclerosing agent like alcohol, steroid, hot water. From 30 patients, 26 patients(87%) has been treated by alcohol injection, and three cases by steroid(10%), only one by boiling saline water(3%).Out of 30 cases with orofacial hemangiomas 23 were female and 7were male,female to male ratio (3.3-1). Out of 30 cases present with hemangiomas,17cases between4- 10years (57%), and 13cases between(10-30) years(43%).Better result when the injection in the proliferation face. Most of the patients injected with alcohol and boiling saline materials complaining from edema, therefore we suggest preoperative dexamethasone injection specially with large lesion and ice pack application.
Keywords: outcome, hemangioma

INTRODUCTION

A hemangioma is a benign tumor of blood vessels origin [1]."fourteen in 100 children are born a with vascular lesion ; most are hemangiomas. Ten percent of these newborn children require the examination of a specialist while the other children have insignificant (small and superficial)hemangiomas"[2]. About eighty three percent locate in the head and neck area. When these lesions are flat and look reddish in color are called "superficial" infantile hemangioma and those occurred deep beneath the skin and look bluish in color are called "deep" infantilehemangiomas[3]. The diagnosis is depend on visual inspection on physical examination by the operator. Treatment options are injection of scleroting agent like. Corticosteroids, alcohol, hot water, B Blocker drugs taking orally or topically or surgical intervention[4]

The objective of the study was to determine the prevalence, outcome of management and complication of hemangiomas.

MATERIAL AND METHODS

This prospective study is include 30 cases of hemangioma between May 2013-April 2019, present to the maxillofacial department in Alkut city. The diagnosis based on the history, clinical examination, ultrasonography and some cases by C.T scan angiography. The age of patients between 4years to 30 years. Material used are ethanol 96%, boiling saline, Methylprednisolone 80mg. All the patients have a frequent follow up, with two weeks intervals. All the injections has been done under local anesthesia except for only one under general anesthesia. The volume of alcohol that injected corresponding to one third of lesion volume, while the steroid 80mg for each session.

RESULTS

Out of 30 cases with orofacial hemangiomale 23 were female and 7 were male, female to male ratio (3.3-1). The age of these patients between 4year and 30 years divided to two groups ,4-10 years with mean age 8.5 years and the second 10-30 years with mean age 15.6 years, that mean the infantile of hemangioma mostly regress in size after 5 years and become smaller then disappear between (5-10years). Regarding the location,20 cases introra l(including upper and lower lip), 3 cases in the parotid region and 2 cases in the submandibular region and 2 cases in oropharynx and extended to involve the nasopharynx and one of them extend to the skull base, two cases in the buccal space ,and one case in the forehead region.

Table 1: Age distribution.

Age of the patient	3-10 yrs	10 -30 yrs	Total
Female	1 5	8	23
Male	2	5	7
Total	1 7	13	30

Table 2: Site of hemangioma

Site of hemangioma	Female	Male
Oral cavity	17	3
Parotid region	3	0
Buccal space	2	0
Oropharyngeal	0	2
Submandibular space	0	2
Forehead	1	0
Total	23	7

Table 3: Management modalities

Management modalities	No.	Fail	Failure%
Alcohol injection	26	2	0.07%
Steroid injection	3	1	33%
Boiling saline	1	0	0%
Total	30	3	10%

Out of 30 cases present with hemangioma,26 cases treated by Alcohol injection in 2-6 sessions with two weeks intervals ,(with mean sessions is 3 sessions) then followed by surgical excision after become smaller in size and fiberous, two of them were fail don't respond alcohol injection due to large size with obvious feeder detected by sonography and C.T angiography . Three cases treated by steroid injection in the parotid region to avoid trauma to the

facial nerve by alcohol, one of them was fail. One case only treated by injection of hot water in the dorsal surface of tongue in two sessions then followed by surgical excision,3 cases disappear without need for surgical intervention ,one of them recurrence was occur after one year and treated also by Alcohol injection and follow up. Two cases in the oropharynx by alcohol injection but fail due to pharangeal edema which result in dysphagia and difficulty of breathing.

Table 4: Complication of injections.

Management modalities	NO	Postoperative edema	Pain	Necrosis	Asphyxia
Alcohol injection	26	26	26	5	1
Steroid injection	3	1	1	0	0
Hot water injection	1	1	1	0	0
Total	30	28	28	5	1

DISCUSSION

Hemangioma is characterized by vascular increasing endothelial cell and enhanceing the cell density, the periods of hemangioma can be classified into the prodromal period, the initial period, the increasing period, the maturation period, and the last is the regression phase.

In this study this study the prevalence of infantile heamangioma is higher in female than male (3.3-1) table (1) ,and this is coincide with Xianqing J.

In this study the prevalence is higher in the age between 3-10 years than a between 10-30 years old, due to most of infantile hemangioma involute between 5-10 years old and this is coincide with .In this study the successful rate of injection alcohol for treatment hemangioma is high 93% specially in small and medium hemangioma less than 4cm in greater dimension, and this is agree with *Xianqing J* that after injection of alcohol for 2-6 session most of hemangioma become smaller in size fiberous then followed by surgical excision to reduce bleeding during surgery and reduce the residual deformity, also the time of surgical intervention be reduced and esthetically better *Thomson H G, Lanigan M*. In facial hemangioma its difficult to wait for complete involution due to psychological trauma to the parants and the child in addition to functional problem some time. The most serious complication occur with alcohol injection to the patient with oropharangeal hemangioma which result in pharangeal edema and difficulty in breathing ,speech and swallowing, therefore is better to avoid and we prefer steroid injection instead. This study illustrated it difficult to control large hemangioma by injection only and failure occur with steroid and alcohol injection that need frequents injection specially near the feeder then surgical excision[3].In this study the successful rate of the alcohol injection higher than steroid injection in addition to less systemic complication. In this study high efficacy of the sclerosing agent in the proliferation face of hemangiomas. This is agree with *Couto JA, Greene* that the result is excellent in the rapid growth stage(proliferation face).In this study one case was treated by injection of boiling water in the dorsal surface of the tongue in two session with two weeks interval resulting in regression in size and firm due to formation of fiberous tissue then followed by surgical excion, so we encourage the using boiling saline water as sclerosing material due to safety of this material, cheap and easily used with good result[7,8]. In this study Most of the patients injected with alcohol and boiling saline materials complaining from edema, therefore we suggest preoperative dexamethasone injection specially with large lesion and ice pack application. Also avoid the injection lesions corresponding to the airway with alcohol to avoid postoperative asphyxia

CONCLUSION

1. In this study the prevalence of infantile hemangioma is higher in female than male.
2. In this study the prevalence is higher in the age between 3-10 years than a between 10-30 years old.
3. The effective of sclerosing agent in treatment of hemangioma as primarily or followed by surgery.
4. In this study the successful rate of the alcohol injection higher than steroid injection in addition to less systemic complication.
5. The injection of sclerosing agents are effective as initial modality for fasting growing hemangiomas.
6. Most of the patients injected with alcohol and boiling saline materials complaining from edema,therefore we suggest preoperative dexamethasone injection specially with large lesion and ice pack application.
7. Avoid the injection lesions corresponding to the airway with alcohol to avoid postoperative asphyxia

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