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Management of Hematoma by Leech Application

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Despite a long history of identification and treatment hematoma needs a long time for cure and still leave some traces behind. In this study cure of hematoma with the help of leech application is observed, which gives great results. This observation is done on 40 patients. In this the patients were divided into two groups, 1st group were given modern treatment and 2nd group were given treatment by leech application. Both group's treatment were compared and observed. And this is observed that leech application treatment is much effective than modern treatment.

Keyword: Trauma, Vascular Trauma.

1. Introduction

A hematoma refers to an abnormal collection of blood in the body i.e. typically the result of broken or ruptured blood vessels. Hematomas can cause a minor skin bruise or a collection of clotted blood that is deep within a muscle, organ or even the skull. Hematomas near the skin result in a large patch of skin discoloration (typically black and blue) that occurs a trauma to the soft tissue. A bruise develops when small blood vessels beneath the skin rupture and blood leads into the soft tissue beneath the skin. Hematoma is common condition due to trauma. Hematoma of the skin and soft tissues are often diagnosed by physical examination only.

Hematoma causes- swelling and inflammation.

One common complication of all hematomas is the risk of inflammation, while the hematoma is made up of old blood it has no blood supply itself and therefore is at risk for colonization with bacteria.

Hematoma of the skin and soft tissues are often treated with RICE [Rest, Ice, Compression and Elevation].

The pain of hematoma is usually due to the inflammation surrounding the blood and may be treated with over the counter pain medication.

For those patients who are taking anti-coagulation medications, ibuprofen is relatively contraindicated because of risk of gastrointestinal bleeding.

Patient with liver disease should not take over the counter of acetaminophen with this treatment for the cure of hematoma.

Recovery is not within a fix period.

In ayurveda hematomas not described but reference of clotted blood is found and advised treatment is bloodletting by Jaloukavacharan.

Acharya vaghbhatta described (A.Hridaya. Sutra 26/53)- if blood is clotted then it should be treated with Jalouka.

A) Acharya Dalhan described-

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Raktamokshan-[Superficial parts] should be done by leeches.

So in the presence study, patients of skin hematomas due to trauma selected for the study and bloodletting by Jalouka.

4. Methods and Materials:-

Leeches were collected in the earthen pot containing water. Water was changed at the frequent interval of 3 days.

A) Application of the jalouka:-

Jaloukawacharan has been mentioned as a parasurgical measures so the process divided into 3 parts.

5. Pre-Operative [Poorvakarma]:-

In this process leeches were kept in the mixture of turmeric powder and water. Then kept in fresh water and used for application.

A) Preparation of patient:-

Position of patients was according to the site of haematoma and locally cleans with warm water.

1) Group wise classification:-

A	20
B	20

2) Sex wise classification:-

Male	22
Female	18
Total	40

Table no.2 shows sex wise classification of patients. There are 22 male and 18 female patients.

3) Age wise classification:-

Table no. 3 shows age wise description of patients,'A' group includes 14 male and 6 female and 'B' group includes 8 male and 12 female.

Age group	A		B	
	Male	Female	Male	Female
0-10	-	-	-	-
11-20	4	2	0	2
21-30	6	4	6	4
31-40	2	0	0	6
41-50	2	-	2	0
Total	14	6	8	12

6. Operative [Pradhankarma]:-

In operative process leech was applied at haematoma.Number of leeches was depending on the size of haematoma.. If leech didnt stuck then minute puncture was done, even if it didnt stuck another leech was tried.

7. Post-Operative [Paschatkarma]:-

A) Withdrawal of leeches:-

Leeches suck blood from haematoma, then it can be removed by sprinkling turmeric powder upon its mouth. Then blood from leech was removed by slow and gentle squeezing from tail to mouth. Pressure bandaged given to the point.

8. Observation:-

40 patients were selected for the study and divided into two groups. 'A' group 20 patients were given modern treatment Rest, Ice, Compression and Elevation for pain Analgesic (Ibuprofen) is given. 'B' group 20 patients were selected for leech application only.

9. Discussion:-

Aacharya Dalhan and Vagbhatta had described the bloodletting in case of hematoma. So in the present study leeches were selected for the purpose of bloodletting due to leech application at clotted blood. Can be dissolved by hirudin (leech saliva contains anti-coagulant substance i.e. hirudin). So the large patch of skin discoloration (typical black and blue) can turn to normal skin coloration within 24 hours and patients get relief from pain.

It was observed that with modern treatment recovery of patients is not within a fix period but with leech application patient is recover within 24 hours without any oral treatment.

10. Summary:-

40 Patients were selected for the study 22 were male and 18 were females. These patients were divided into two groups 'A' group was exposed for modern medicine and 'B' group was exposed for leech application.

11. Conclusion:-

- 1) Application of leeches has been found very effective in the management of hematoma.
- 2) This treatment doesn't have any side effect.
- 3) Doesn't require any antibiotic or anti-inflammatory.
- 4) Patients recovery is within short period of time.

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