MEDICAL CHANNEL

Original Article

LEECH INFESTATION IN UPPER RESPIRATORY TRACT (URT)

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ABSTRACT

Aim: Present study was planned to examine leech infestation in upper respiratory tract (URT) and Alimentary Tract (AT).
Study Design: Retrospective as well as cross sectional study
Subjects and methods: Twenty eight patients with ENT and upper GI Tract problem were evaluated. Study was conducted from December 1969 up to April 2013. Total time duration was 40 years. The study places were Departments of ENT, Ayub Medical College Teaching Hospital Abbottabad, Lady Reading Hospital Peshawar and Jinnah Medical College DHQ Teaching Hospital Charsadda. Patients were examined personally in order to avoid any error. Student's "T" test was applied to determine any significance among various parameters.
Results: When results were summed up and test parameters were compared, it was seen that most common site of leech infestation was lateral and medial walls of the nose ($P<0.05$). the second most common sites found were back of nasal septurm, roof of post nasal space and posterior nasopharyngeal walls.
Conclusion: Conclude that lateral and medical nasal walls of nose are most common sites of living leech infestation, which may be a cause of epistaxis, therefore leech infestation must be kept as differential diagnosis for various foreign bodies in the respiratory tract causing recurrent epistaxis.

Key words: Leech infestation, Upper respiratory tract, Epistaxis.

INTRODUCTION

Leech infestation has not been mentioned as a cause of epistaxis in common text books. Leeches are parasites belonging to the phylum annelida and class Hirudineal[1]. Orofacial hirudniniasia is a condition in which leech enters the body orifices, most often the nasopharyngeal region. However, some cases of leeches infesting the urethra, vagina, rectum or even eyes have been reported[2]. Leeches are blood sucking parasites that attach themselves to the vertebrate hosts bite through skin and sucks blood. Both aquatic and land leeches are known to attack humans. Infestation occurs by drinking infested water from or taking both in stagnant, pools and springs[3,4]. The saliva of leech contains hirudin, which inhibits thrombin in the clotting process and histamine like substances that cause continuous bleeding by causing vasodilation[5]. These parasitize and usually localize on the mucosa of pharynx, esophagus, nose or nasopharynx[6,7]. Leech usually enters nasal cavity, when patients takes bath in leech infested lakes/ponds[8]. The parasite should removed promptly because prolonged exposure may causes infections and anaemia due to blood loss.

PURPOSE OD STUDY:
Present study was planned to examine the above facts by using a series of patients to me since 1969.

PATIENTS AND METHODS

Twenty eight patients with ENT and upper GIT problems were emerged out of four thousand patients. This restrospective as well as cross sectional study was conducted at Ayub Medical College Teaching Hospital Abbottabad, Lady Reading Hospital Peshawar and Jinnah Medical College DHQ Teaching Hospital Charsadda for the period of Forty years. The study was conducted from December 1969 and completed on April 2013. Patients presenting complaints plus past and family histories were noted. Their age, sex & socioeconomic status and history about sources of water drinking, bathing or making Vizu for prayers were noted. Their data was analyzed carefully by a single ENT specialist in order to avoid any error. Examination of external auditory canal, Anterior/Posterior Rhinocopy (to observe any moving object in the nasal cavity) and diagnostic endocopies were performed in all of the patients. Blood samples for complete picture (C.P) were collected from anticubital veins by using strict aseptic measures. Statistical analysis was performed by students "T" test method, in order to evaluate any significance among various parameters.

RESULTS

When results were summed up and test parameters were compared out it was seen that most patients were belonging to low socioeconomic group. There was a history of (drinking, bathing and making Vuzu for prayers) water taken frequently from natural sources like free flowing water lake polluted stagnant as well as open ponds. Epistaxis, nasal obstruction and sensation of moving foreign body were common presenting complaints. Other complaints noted were haemoptysis and haematemesis. Haematological examination revealed that most patients were having normocytic and hypochromic anaemia. Out of twenty eight patients of leech infestation (Table) eleven (11) patients sites of infestation were lateral and medial nasal walls. Second most common sites were: Backof nasal septum, roof of post nasal space and posterior nasophyrangeal wall. The total number of patients were Ten (10) in this group. Five cases were seen with leech attachment in hypopharynx and pyriform fossa. Lowest statistical data was found (n=3) in laryngeal inlet and vocal cords, and attached to entrance of esophagus. Differences were found highly significant ($P<0.05$), when these parameters were compared statistically.

DISCUSSION

Leech infestation is common occurrence in areas such as Mediterranean and Asia[9]. Leeches are reputed to be dangerous parasites because of feeding externally on blood often from human hosts. Leeches can ingest blood up to 8 – 9 times of their body weight and may cause severe anemia in the host[11]. Their bites are painless, due to release of saliva that has local anaesthetic property. Cases of nasal infestation have been reported from various parts of India is, Pakistan and Nepal[10-14], Examination of nasal cavities revealed fleshy materials in the nostrils which were identified as leech[12]. Present study is compatible with above studies[10-12]. We also found greater incidence leech infestation in nose. Sites of manifestation were lateral nasal wall and medial nasal wall (n=11). Second most common sites found were: Back of septum, roof of post nasal space and posterior nasopharyngeal wall plus

Statistical Data For Hirudiniasis from (1968-2012)

No. Of Patients	Site of Infestation	Duration of Patient's Contact	Drainage Area	Hospital Where Patients seen	Signs and Symptoms
Eleven(11)	A. Lateral Nasal wall B. Medial Nasal Wall (Nasol Septum)	1968- 1984	Abbottabad, Peshawar, Charsadda and Hazara	4 patients at LRH in 1968-1969 and 1977-1979 $_2$ 7. Patients at DGQ Hospital Abbottabad	Mostly anterior nose bleed with blood spitting
Nine (9)	1.Back of Nasal Septum Case(3) 2. Roof of pastansal space cases (3) 3.Posterior Nasopharynx wall cases (3)	1968- 1984	Peshawar District and Hazara District	2 patients at LRH during 1968-1969 1 patient at LRH in 1977-1979 6 patients at DHQ hospital Abbottabad 1980-1984	Recurrent Haemoptysis+ the current Haemetemesis Malena + Nose Bleeds
Five (5)	Hypopharynx (3) Pyriform fossae (2)	1980-1998	Peshawar District and Hazara District	DHQ hospital abbottabad And Wapda hospital Peshawar + Bukhari general Hospital Peshawar	Recurrent Haemoptysis+ the current Haemetemesis Malena
Three (3)	Laryngeal inlet epiglottis (1) And Vocal cords (2)	1980-1998	Peshawar District and Hazara District	DHQ hospital abbottabad And Wapda hospital Peshawar + Bukhari general Hospital Peshawar	Recurrent Haemoptysis+ the current Haemetemesis Malena

hypopharynx & upper esophageal end. Present study is also in agreement with study done by Kalra, as in our study, epistaxis, nasal obstruction and sensation of a moving foreign body were also common complaints of leech infestation in the nose. Most patients in our study were belonging to low socioeconomic group and majority of these patients were having normocytic hypochromic anemia, with other investigations within normal limits.

CONCLUSION

Finally we conclude that leech infestation should be kept as differential diagnosis of nasal obstruction and epistaxis in patients living in rural areas, who give history of drinking polluted water or bathing or making Vuzu for prayers from stagnant ponds as well from water flowing through other polluted sources. This interesting and unusual cause of bleeding from upper respiratory tract should not be forgotten, as the cure is easy and patient can be saved from costly and inconvenient investigations and treatments.

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