Original Article

Different presentations of filariasis and different modalities of management

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Abstract

Introduction: Filariasis is an endemic problem in various Indian states, it's most common in Andhra Pradesh, Bihar, Gujarat, Kerala, Maharashtra, Orissa. The incidence of filariasis has decreased over time. We present this paper to discuss some rare presentations of filariasis and discuss their different modalities of management. **Material and Methods:** We conducted a retrospective study of 100 patients treated for filariasis who presented to the Mahatma Gandhi Medical College and Hospital from June 2013 to June 2015. All patients were treated medically and few required surgical management. Data of the patients was collected from MGM hospital medical records section and outpatient department. **Results:** Depending on grade of edema of lower limbthe line of management was decided whether medical or surgical intervention .Grossly it was observed grade 1 and 2 edema required only medical line of management whereas grade 3 and 4 required medical as well as surgical line of management. 20% patients required surgical intervention. Among medical management coumarin derivatives showed better result than DEC in lymphatic edema. **Conclusion:** Early diagnosis and medical management gave better results in filariasis as we were able to avoid surgical intervention in majority of cases.

Keywords: filariasis.

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INTRODUCTION

Lymphatic filariasis is caused by, WuchereriaBancrofti, Brugiamalayi or *B.* timori. inasian countries**.** These parasites are transmitted to humans through the bite of an infected mosquito and develop into adult worms in the lymphatic vessels, causing severe damage and swelling (lymphoedema). The major vectors of *W.* Bancrofti are mosquitoes of the genus. Culex (in urban and semi-urban areas), Anopheles (in rural areas of Africa and elsewhere). Aedes (in islands of the Pacific). Filariasis is an endemic problem in various Indian states. In India Andhra Pradesh, Bihar, West Bengal, Uttar Pradesh, Orissa, Tamil Nadu, Maharashtra, Kerala, Gujarat contribute to around 95% of total burden. India contributes about 40% of the total global burden.

MATERIAL AND METHODS

A retrospective study was conducted in 100 patients treated at Mahatma Gandhi Medical College and Hospital, Navi Mumbai (a tertiary care hospital) from June 2013 to June 2015. Data of the patients was collected from MGM hospital medical records section and outpatient department. All patients received medical management and few required surgical management. Out of the 100 patients 46 patients presented with epididymoorchitis and subsequent hydrocele. 34 presented with lower limb lymphangitis with or without elephantiasis, 10 presented with scrotal wall filariasis out of which 2 had ram horn penis 4 presented with chyluria. 2 presented with mastitis and breast abscess 1 presented with chylous ascites.

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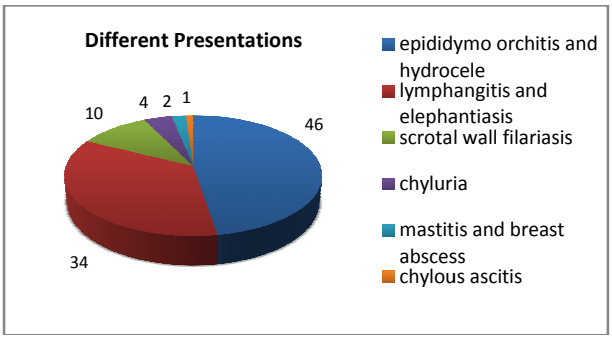
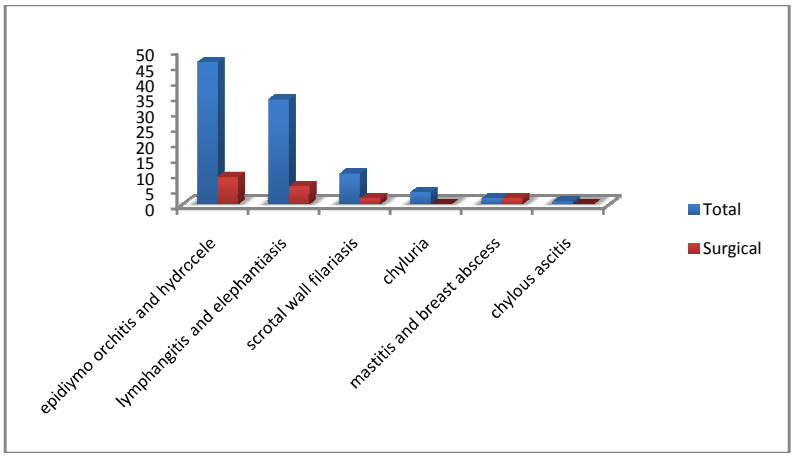


OBSERVATIONS AND RESULTS

All 46 patients diagnosed with epididymoorchitis were treated with Depodem and DEC, 24 developed hydrocele and 16 underwent surgery for hydrocele of which 9 had hydrocele with thick walls and had to undergo excision of sac and 1 patient underwntorchidectomy who also had meshplasty simultaneously. In other patients eversion of TV sac was done. Among the 34 cases of lower limb lymphangitis and elephantiasis 10 underwent debulking surgery and later skin grafting.

- Out of the 10 scrotal wall filariasis cases 2 required surgery.
- 2 breast abscess cases required incision and drainage and was diagnosed postoperatively.
- Chylous ascites and chyluria were treated medically.



Need for surgical intervention in various cases. All the 100 patients in the study were treated medically with depodem which is a coumarin derivative and DEC. It was observed that those patients who presented early responded better to the treatment and need for surgical intervention was less. Those who presented in the later stages had to undergo surgical intervention. Depending on grade of edema of lower limb the line of management was decided whether medical or surgical intervention. Grossly it was observed Grade 1 and 2 edema required only medical line of management whereas Grade 3 and 4 required medical as well as surgical line of management. 20 % patients required surgical intervention. Among medical management a combination of coumarin derivatives and DEC showed better result in lymphatic edema.

Figure 1: Pre operative and Post operative pictures of lower limb elephantiasis



Figure 2: Case of Scrotal Filariasis
Figure 3: Intra operative picture of Debulking Surgery
Figure 4: Scrotectomy done and penile skin graft put

DISCUSSION

- It is divided into acute and chronic presentations.
- Acute presentations include
- Acute filarial fever,
- Acute lymphangitis,
- Acute orchitis,
- Acute epididymo orchitis,
- Acute funiculitis,
- Acute mastitis

Chronic presentations include

- Lymphatic block with distal dilatation
- Lymphangiectasis, hydrocele of scrotum, hydrocele of breast
- Lymphatic block with distal dilatation and rupture-
- Chyluria, chylothorax, chylous diarrhea, chylocele, chylous ascites and lymphorrhea

Lymphatic block with lymph stasis

- Elephantiasis of upper limb and lower limb
- Elephantiasis of breast
- Elephantiasis of scrotum with or without ram horn penis, elephantiasis of vulva

Grades of Edema

Grade I

- Edema is pitting
- Bony points are not obliterated
- Skin is healthy

Grade II

1. Edema is pitting
2. Bony points are obliterated
3. Skin is healthy

Grade III

1. Edema is partially or non pitting
2. Bony points are obliterated
3. Skin is healthy

Grade IV

1. Edema is non pitting
2. Bony points are obliterated
3. Skin is unhealthy

Management Investigations

- Blood – Eosinophil Count, Thick smear at midnight for microfilaria.
- Urine – Forchyluria and For microfilariae
- Ultrasonography – Used to demonstrate and monitor lymphatic obstruction of the inguinal and scrotal lymphatics and demonstrate the presence of viable worms.

Histopathology findings

- Lymphatic Filariasis - Affected lymph nodes demonstrate fibrosis and lymphatic obstruction and collateral formation
- Elephantiasis - The skin is characterized by hyperkeratosis, acanthosis, lymph and fatty tissue, loss of elastin fibers, and fibrosis.

Medical management

- Diethylcarbamazine(DEC) 100 mg TDS for 3 weeks
- Coumarin derivatives eg.Depodem 200 mg B.D

Surgery

- Large hydroceles and scrotal elephantiasis can be managed with surgical excision. Correcting gross limb elephantiasis with surgery is less successful and may necessitate multiple procedures and skin grafting.

Prevention

- Avoid mosquito bite by using insect repellent and mosquito nets.

Diet and activity

- Fatty foods are restricted in individuals with proven chyluria that is associated with lymphatic filariasis.
- Individuals with chronic lymphatic filariasis are encouraged to mobilize (with compression bandage support) the affected limb

CONCLUSION

Early diagnosis and medical management gave better results in filariasis as we were able to avoid surgical intervention in majority of cases.

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