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Letter to Editor

Patient Designed Indigenous Leg Elevation Device (LED)

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Dear Sir,

The management of secondary lymphoedema is mainly driven by patient education to support the conservative management by self-directed therapy. It consists of regular use of compression garment or sequential compression bandaging, manual lymphatic drainage, remedial exercises, skin care, limb elevation and support [1,2]. Active involvement of patient in treatment can help them innovate as well as be motivated towards treatment. We present a case of 32yr/ M with post traumatic, post DVT, post filarial lower limb edema managed conservatively who innovated and designed a Leg Elevtion Device (LED) for limb elevation which was economical and easy to use.

32 year male presented with left lower limb swelling below knee since 12 years. Patient was treated on inpatient basis for investigation and management. Patient was diagnosed to have grade II post traumatic lymphedema with adherent scar across his lower thigh which was confirmed on lymphoscintigraphy as obstruction of flow below left knee. Patient was planned for a release of scar tissue & lympho-venous anastomosis. However on further investigation patient was found to have filarial serology positive and history of DVT with partially canalised deep veins. Hence decision of conservative management was taken measures like scar massage, manual lymphatic drainage, remedial exercises, skin care, compression garment, limb elevation and support and patient educated regarding conservative measures like scar massage lymphatic massage, compression garment, limb elevation and limb rest. Patient was educated the pathology of disease and the scientific basis of treatment. Patient was informed of local ways of limb elevation like keeping 2 bricks under the lower end of the bed [3]. On follow-up patient presented with a cost effective self designed leg elevation device for lower limb elevation.

Details of the Invention

The patient designed a simple wooden device developed to support lower limb on an individual with varying levels depending on the position of the patient (Figure 1a,b). It can be used while sleeping supine as well as sideways position to maintain limb elevation (Figure 2-4). It can also be used to support and elevate limbs in low level seatings as commonly seen in villages. The primary objective of the limb support is to provide leg elevation, support and rest at all times to facilitate edema reduction measures. It is economical & can be prepared locally by the carpenter and modified as per the need of the patient. It is also portable and can be carried along to nearby places to assist limb elevation while sitting.

From the treatment point of view Conservative management of lower limb edema involves teaching patient self directed therapies which aid anti edema measures. Patient education and active participation of the patient in the treatment motivates them to locally innovate and assist treatment. It also ensures certain level of compliance as it is produced as per the patient needs and by the patient. This patient designed wooden leg elevation device is economical, can be

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reproduced locally, and modified as per ones needs, portable and used in various postures of the body. We suggest to actively involve patients in their treatment with patient education and encourage their innovations so they can in their own small ways contribute and assist treatment with locally available resources.

Fig. 1a: Leg Elevation Device (LED) with different levels for leg elevation

Fig. 1b: Elevation Device (LED) placed straight and sideways

Fig. 2: Patient sitting in a low seating and using Elevation Device (LED) for limb elevation

Fig. 3: Limb elevation in Supine position

Fig. 4: Limb elevation in sideways position

Conclusion

This method of patient designed Elevation Device (LED) may be helpful for conservative anti edema measures. Added advantages are availability of various levels and its usefulness in both supine and sitting positions.

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