

Buergers Disease: Omental transplantation a novel approach of Treatment

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Abstract

Thromboangitis obliterans (TAO) also known as Buergers disease is occlusive inflammatory disease of medium and small sized arteries. In India prevalence is very high up to 45-63%. Treatment options are limited. Omental transplantation may be considered as a safe and effective treatment modality with smoking cessation.

Buerger's disease is a segmental occlusive inflammatory condition of arteries and veins, characterized by thrombosis and recanalization of the affected vessels^{1,2}. It is characterized by involvement of medium and small sized arteries. The prevalence of the disease among all patients with peripheral arterial disease ranges from values as low as 0.5 to 5.6% in Western Europe to values as high as 45 to 63% in India^{3,4}. It usually affects the Productive age group of 40-45 years. There is history of chronic smoking in form of Bidi for a long duration in most of the patients.

Most of the time patients come to hospital with advanced disease. Various treatment options are available with inadequate response. Patients should stop smoking completely without any delay to prevent progression of disease⁵. Supportive care in form of preventing thermal and chemical injury, properly fitted footwear's, prevention of fungal infection and avoiding exposure to drugs and cold causing vasoconstriction is important. Role of anti-inflammatory agents like steroids are controversial with no response. In TAO, arterial revascularization is usually not possible due to the diffuse segmental involvement and distal nature of the disease⁶. Newer drugs like Iloprost⁷ and Intra-arterial thrombolytic therapy with streptokinase⁸ has been tested in some patients with success. Sympathectomy can reduce pain but long term benefits are not clear^{9, 10}.

Krishnanand and Chanchlani et al¹¹ in their study showed beneficial effect of Omental transplantation in Buergers disease. Other studies^{12,13,14} have also shown beneficial effect of Omental transplantation. Study has some limitations. Large series of patients are required to confirm beneficial effect. Follow up is also indicated to see long term effect of procedure. Doppler study and angiography should be performed before and after transplantation to evidence increased blood supply.

In various studies remote limb-salvage rate amounted to 88% to 100%^{14,15}. In a study of 273 patients by Agarwal et al¹² showed good results in 94% of patients in 0-5 years follow up. In long term follow up from 5-15 years 85% showed good results.

To conclude Omental transplantation with cessation of smoking may be considered as a safe and effective treatment option for Buergers disease. All other treatment modalities have limited role in progression of disease.

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