

Clinical and Angiographic Profile of Peripheral Vascular Disease in Western Rajasthan

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Abstract: *Peripheral vascular disease is very common in western Rajasthan. Atherosclerosis is found to be a major cause. Men within 50-60 year age group are most commonly affected with smoking being a major risk factor. Gangrene being the most common symptom mainly affecting the lower limbs. The main modality for investigation being Angiography. Surgery is the main modality of treatment with vascular by pass procedure being the most common procedure.*

Keywords: peripheral vascular disease, gangrene, atherosclerosis, angiography, vascula bypass

1. Introduction

Diseases of arteries now constitute most important ailments of man, resulting in increased morbidity, mortality and economic impact on society. Despite complex nature of the cause of most vascular disease significant progress have been made regarding etiology, diagnosis and treatment of the disease.

This study emphasizes on clinical and angiographic profile of peripheral vascular disease on western Rajasthan.

2. Methods and material

The prospective study was done on 25 patients, admitted in surgical ward with peripheral vascular problem at MG Hospital, Dr. S.N. Medical College, Jodhpur. The study focused on clinical profile and angiographic findings, interpretations and complications in patients with peripheral vascular disease.

3. Results

The study suggests that peripheral vascular disease is common between 20-70 years age group, with majority of cases between 50-60 years age group (32%). Males (72%) were affected more than females (18%). 72% of the patients were alcoholic and smoker.

Lower limb involvement (92%) was significantly higher than upper limb (8%) with right limb more commonly involved than left. The great toe (20%) was the most common digit involved.

On clinical examination, most of the patients had the symptoms of gangrene, claudication/ulceration of extremity, rest pain and intermittent claudication. Gangrene (48%) was the most common symptom followed by non healing ulcer (32%).

Angiographic evaluation of the site of block revealed Femoro-popliteal (28%) and distal arteries (28%) being the most common sites of obstruction.

Clinically and angiographically the most common cause of peripheral vascular disease was found to be atherosclerosis (60%) followed by Thromboangitis obliterans (16%).

All patients were treated surgically, with vascular by-pass (60%) being the most common procedure being performed followed by lumbar sympathectomy (16%), myocutaneous flap (8%), below knee amputation (8%), embolectomy (4%) and cervical rib excision (4%). In all the cases autogenous saphenous vein graft was used. Graft failure was seen in 2 cases, reoperation was done in both cases, out of two one case again developed graft failure and subsequently amputation had to be done.

Side effects of arteriogram was seen in 9% of cases as mild idiosyncratic reactions (nausea, vomiting, itching, sweating, etc.) and were treated by antihistaminics and steroids.

4. Discussion

Peripheral vascular disease is quite prevalent in western Rajasthan. It commonly affects population between 20-70 years, with majority being above the age of 50 years. This result is not in agreement with other previous Indian studies done in past which interpreted higher incidence in younger age group. The changing pattern of mean age group of peripheral vascular disease in this study may be due to improved life expectancy, changing life style and dietary habit. Males outnumbered females in the study. The disease affects lower limb more than upper limb.

Atherosclerosis was the major cause (60%). Its incidence was relatively less compared to other western studies. This is probably due to changing pattern of life style. Other causes were Buerger's disease (thromboangitis obliterans), traumatic, diabetic, Raynaud's, embolic. Diagnosis of

atherosclerosis and Beurger's disease was confirmed by Histopathological examination.

Angiography is relatively safe, cost effective and simple procedure providing more precise diagnosis. It not only identifies the segment of vessels but also makes it amicable for curative surgical procedures.

Angiographic evaluation revealed that the most common site of blockage being femoro-popliteal and distal arteries (anterior tibial, posterior tibial). Other sites of blockage being femoral, iliac, ilio-femoral.

The side effects of angiographic procedure was seen only in 4% of cases as mild idiosyncratic reactions (nausea, itching, vomiting, etc.) which were treated by antihistaminics and steroids.

Patients in all age group may suffer major complications, with most fatal reactions occurring in patients over 50 years of age. There is a significant increase in the risk of major complications if the patient has cardiopulmonary disease or is an alcoholic.

All the patients were treated surgically. Vascular by pass procedure was the most commonly used procedure. In all the cases autogenous saphenous vein graft was used because of its adequate length and lumen. When followed the cases for 6 months, out of 15 cases, only 2 cases showed features of early graft failure (within 30 days). Reoperation was done in both the cases, out of two one again developed graft failure and subsequently amputation had to be done.

Embolectomy was performed in one patient which was also initially admitted for the complain of myocardial infarction. After embolectomy, patient was symptomatically relieved and distal pulsations appeared.

Free myocutaneous flap were applied on 2 patients who had non healing ulcer on foot and leg, in both cases Latissimus dorsi muscle flap along with its vessels was taken applied in ulcer. Below knee amputation was performed in two cases.

Out of 25 patients, one was diagnosed with cervical rib. Though cervical rib excision symptomatically relieved the patient however peripheral pulses did not appear.

5. Conclusion

To conclude, the diverse nature of peripheral vascular disease and its varied management makes peripheral vascular disease a complex intriguing surgical problem in western Rajasthan. Atherosclerosis is found to be a major cause. Men within 50-60 year age group are most commonly affected with smoking being a major risk factor. Gangrene being the most common symptom mainly affecting the lower limbs. The main modality for investigation being Angiography with most common site of blockage being Femoro poplital junction. Surgery is the main modality of treatment with vascular by pass procedure being the most commonly used method.