

Abstracts

Thrombolytic Therapy in Chronic Arterial Occlusions

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Over the past few years we have treated 74 chronic arterial occlusions in 43 patients with streptokinase. The treatment was successful in 21 of 35 occlusions and stenoses which were six days to six weeks old, but only in five of 19 which were six weeks to six months old, and in none of 12 older ones. The larger the occluded vessel the better the result. After fibrinolytic treatment, anticoagulant therapy was instituted. It is interesting to note that it is not possible to conclude from the condition of the wall of the reopened vessel how long it will remain patent.

treatment is high. Bleeding is frequently observed. Gastrointestinal bleeding can be avoided if a careful search for ulceration is made before starting therapy. Bleeding after arteriography is avoided if there is an interval of one week between femoral arteriography and two weeks between lumbar aortography and treatment. Patients with embolism due to cardiac disease should not be treated with streptokinase at all, whether the source of embolization be atrial thrombi, mural thrombi after myocardial infarction, or valvular endocarditis. Allergic complications, including fever on the first day of treatment, are rare since well purified preparations of streptokinase are used. However, if the treatment continues over more than two days, fever is a frequent complication. Its cause is not yet clarified. Resorption of toxic products from the reopened occluded

Site of Occlusion		Total				Group 1: Six Days—Six Weeks				Group 2: Six Weeks—Six Months				Group 3: More than Six Months			
		No.	Lysis	No Lysis	Relapse	No.	Lysis	No Lysis	Relapse	No.	Lysis	No Lysis	Relapse	No.	Lysis	No Lysis	Relapse
Iliac artery	Occlusion	13	9	4	—	7 ¹	7 ¹	—	—	2	1	1	—	—	—	—	—
	Stenoses					—	—	—	—	2	1	1	—	1	—	1	—
Femoral artery	Occlusion	40	12	28	2	14	9	5	1	11	2	9 ²	1	—	—	—	—
	Stenoses					3	—	3	—	2	1	1	—	1	—	1	—
Popliteal artery occlusion		13	5	8	2	10	5	5	2	2	—	2	—	1	—	1	—
Arteries distal to the popliteal artery		8	—	8	—												
Total		74	26	48	4	34	21	13	3	19	5	14	1	12	—	12	—

Table *Thrombolytic therapy of 74 chronic arterial occlusions and stenoses in 43 patients*

¹Three patients with occlusion of aorta-femoral-Y-dacron-prosthesis

²One patient with occlusion of a femoro-popliteal dacron bypass.

Both surgical and streptokinase treatment may lead to the same beneficial functional result. This is demonstrated in a 69-year-old man whose right femoral artery was surgically reconstructed. After one-and-a-half years the occlusion recurred and was treated with streptokinase 35 days later. The vessel was reopened and is still patent three years later. The resting blood flow and the peak flow following a period of five minutes' arterial arrest were the same after both surgical and streptokinase treatment.

The number of complications of streptokinase

area has been suggested. A septic complication was the cause of the fever in one case only. Streptokinase treatment of long duration is a psychic stress to the patient and may induce cerebral decompensation, anxiety, confusion, and depression. Smaller and larger peripheral emboli may be observed distal from the occlusion of the vessel during dissolution of the thrombus, especially if patients with reoccluded aorto-iliac dacron prostheses are treated. Embolectomy from the femoral or popliteal artery may become necessary in the latter cases.