THE IMPORTANCE of iliofemoral thrombophlebitis lies more in the disabling consequences of venous valvar incompetence than in the threat of pulmonary embolism, although the latter has received more attention. For many years treatment has consisted in elevation of the limb and application of compression bandages to control edema, and use of anticoagulants to minimize propagation of thrombus, promote collateral venous flow, and reduce the risk of pulmonary embolism. In this way chronic edema, ulceration, and infection are usually avoided, but the patient must wear elastic hose indefinitely and elevate the limb for one or more short periods each day.

Within the past 10 years, thrombectomy has been introduced in the treatment of iliofemoral thrombophlebitis.\(^1-3\) Operation is simple and safe. Under local anesthesia, the clot is removed through an incision in the common femoral vein. Use of suction while the patient does the Valsalva maneuver permits removal of thrombus proximal to the incision without danger of pulmonary embolism. Removal of thrombus distal to the incision is facilitated by compression of the limb, beginning at the toes and moving toward the incision. After operation, heparin is given for 1 to 3 weeks. Reported experience with thrombectomy indicates shortening of convalescence and avoidance of postphlebitic edema, even though operation has been delayed in some patients 2 to 3 weeks after onset of symptoms. Despite these apparent advantages, however, thrombectomy has not been widely accepted, and differences of opinion still exist about the best treatment.

Two forms of iliofemoral venous thrombosis are recognizable clinically: phlegmasia alba dolens (milky leg) occurs more often, has a more gradual onset, and causes less severe symptoms and sequelae than phlegmasia cerulea dolens. Both forms probably arise from injury to a segment of the iliac or common femoral vein at operation, delivery, or under other circumstances, and a primary clot forms at the site. Because of its limited extent, this injury thrombus does not interfere with venous outflow from the limb. Later, however, systemic changes occur in blood viscosity, coagulability, or flow, and a secondary, propagating clot forms on the surface of the old. Propagation is generally peripheral, although it may be central as well. If the rate of propagation is rapid, with occlusion of all collateral venous routes draining the limb, phlegmasia cerulea dolens occurs, with massive edema, hypotension due to sequestration of blood in the limb, and cessation of arterial inflow. If the rate of propagation is slow and the hypogastric vein

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remains open to function as a collateral venous route, phlegmasia alba dolens develops with moderate to severe swelling of the limb, tenderness along the course of the femoral vessels, and slight rise in temperature, but no evidence of ischemia of the limb.

Inflammatory changes in the venous wall are probably caused by thrombus on the endothelium, the duration of thrombosis probably determining the degree of change. Since secondary thrombosis occurs rapidly in phlegmasia cerulea dolens, diagnosis is possible before there is evidence of inflammation. On the other hand, since secondary thrombosis occurs insidiously in phlegmasia alba dolens, diagnosis is usually made later in its development, when inflammation is a prominent feature.

Natural dissolution of venous thrombi can restore patency to the iliofemoral system. In fact, little or no venous obstruction is evident in phlebograms made after recovery from the acute symptoms of thrombophlebitis treated by elevation, with or without anticoagulants. Postthrombotic sequelae, however, are due not primarily to venous obstruction but to incompetence of venous valves from endothelial damage by the thrombus, and merits of any form of treatment must therefore rest on prevention of valvar incompetence. Since endothelial damage is directly related to how long a thrombus has been present, thrombectomy is the treatment of choice early in the course of iliofemoral thrombophlebitis, when it promises relief of symptoms and freedom from edema in most patients. In patients with phlegmasia cerulea dolens, the decision can be reached easily because early treatment is almost always possible, and thrombectomy is therefore the treatment of choice.

In patients with phlegmasia alba dolens, however, the decision is not so easily reached because duration of the thrombus may be uncertain. If symptoms have been present less than a week and if tenderness over the course of the vessels is not severe, inflammatory changes in the venous wall are probably early, and thrombectomy will relieve symptoms and prevent postphlebitic sequelae in most instances. In general, results are better on the first day symptoms appear than on the seventh day thereafter. Thrombectomy performed more than 1 week after appearance of symptoms is seldom completely successful and has little or no advantage over nonoperative treatment.

Recent refinements in diagnosis and treatment of pulmonary embolism are relieving some of the apprehension about this complication of venous thrombosis. More attention will now undoubtedly be given to iliofemoral thrombophlebitis and its local effects. An understanding of its origin, correct evaluation of the pathological stage when diagnosis is made, and awareness of what nature, modestly assisted, can do will permit intelligent use of thrombectomy when it is most likely to succeed.

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