Editorial

Arterial Disease in Japan

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IN the United States and other western countries, many patients with arteriosclerotic aneurysm or arteriosclerosis obliterans of the ilio-femoral arteries are hospitalized in surgical ward and resection of the aneurysmal sack and grafting of synthetic arterial prostheses are routinely performed for the former and thromboendarterectomy or by-pass grafting for the latter. Diabetic gangrene is also frequently encountered and treated by transmetatarsal amputation or other surgical procedures. On the other hand, there appears to be only few cases of thromboangiitis obliterans described by L. Buerger or pulseless disease described by Takayasu and Shimizu.

In Japan, majority of the patients with symptoms of intermittent claudication or spontaneous gangrene of the foot are adult and young male, in whom chronic occlusion of small arteries of the leg, forearm or more distal region is usually found and frequently accompanied by migratory phlebitis. Occluded arteries in these cases usually have an appearance of narrow hard strings. Their walls show fibrous hyperplasia and their lumen are filled with organized thrombi which show tight fibrous adhesion with the wall and the surrounding tissue. Diabetes mellitus or hypertension is rarely present in these cases and serum cholesterol level is usually less than 200 mg. / 100 ml.

When occluded arteries of these types are exposed at operation, atheromatous plaque or calcification is usually absent and organized thrombi with degenerated internal elastic lamina frequently make thromboendarterectomy impossible. By-pass grafting is also difficult when occluded arterial segment is long. Histological examinations sometimes reveal acute nonspecific arteritis in the radial artery or posterior tibial artery.

These experiences may indicate that majority of occlusive arterial disease of the extremities in Japan are thromboangiitis obliterans (Buerger) and that arteriosclerosis obliterans is less common in Japan than in the western countries.

In the western countries, patients with cerebral arterial insufficiency often show segmental narrowing of the carotid-vertebral arteries due to arteriosclerotic plaque and they can be treated with thromboendarterectomy. While, in Japan, the incidence of non-traumatic thrombosis of the internal carotid

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artery and pulseless disease is high, in which arterial reconstruction is not indicated. Furthermore, McKusick has recently reported equally high incidence of these diseases in Korea, China, Indonesia and in the other south-eastern Asian countries.

Thus, extensive and precise studies of geographical difference in the incidence of various types of arterial disease are urgent.