

297

MEASUREMENT OF PERIPHERAL CIRCULATION IN PROGRESSIVE SYSTEMIC SCLEROSIS (PSS) BY INTRAARTERIAL INJECTION OF Xe-133. *H.Mizutani, T.Hamaguchi, **T.Nakagawa. *Department of Dermatology, **Department of Radiology, Mie University School of Medicine, Tsu

Quantitative studies on peripheral circulation by regional clearance of intrarterially administered Xe-133 were carried out on 9 normal subjects, 7 patients with PSS and 4 patients with PSS on oral steroid. Ten sec. sequential images of hand and forearm were acquired for 29 min. using scintillation camera and computer system. Regional washout curves for selected ROI (fingers, hand and forearm) were analyzed into 3 compartments (ie. intravascular compartment, cutaneous and muscle compartment and subcutaneous compartment). Calculation was done according to modified Kety's method. Blood flow of the hand and fingers was increased in patients with PSS compared with normal subjects ($p < 0.01$) and patients with PSS on oral steroid ($p < 0.05$). Relative weight of subcutaneous tissue of hand was decreased in patients with PSS compared with normal subjects ($p < 0.02$) and patients with PSS on oral steroid ($p < 0.02$). Above results are valuable in detecting pathophysiological conditions in patients with PSS and effects of steroid. Although, in this study, the blood tissue partition coefficients was assumed to be the same in both normal subjects and patients, further studies on experimental measurements of coefficients in PSS are now in progress.

298

THE DIAGNOSTIC VALUE OF THE HEMANGIOMATOUS LESIONS WITH Tc-99m LABELED RED BLOOD CELLS H.Suzuki, T.Okuyama and S.Suzuki. Tokyo Medical and Dental university School of Medicine. Tokyo.

Angiographic examination is thought to play an important role in diagnosis of the hemangiomatous lesions and may be indispensable in cases in whom surgical treatment is planned.

The examination on cavernous hemangioma, however, is not infrequently disappointing as a diagnostic tool since it is extremely difficult to fill the entire cavernae of the hemangioma with contrast medium.

The purpose of our study is to evaluate the diagnostic value of RI-angiography using Tc-99m labeled red blood cells in demonstration of cavernous hemangioma.

The materials in the present investigation are 6 cases of cavernous hemangioma in the soft part, a case of capillary hemangioma and a case of hemangioma of which histological type is undecided.

Both dynamic and static images were obtained by scintigraphy.

The entire extension of cavernous hemangioma was successfully demonstrated on static image in all 6 cases of cavernous hemangioma. Tc-99m-human serum albumin was also used in 3 cases in the present materials. The possible differentiation between cavernous and capillary hemangiomas based upon the dynamic and static images was also discussed.