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SCINTIGRAPHY OF NEUROBLASTOMA WITH 1311-METAIODOBENZYLGUANIDINE (MIBG). M.Katsuragi, Y.Ichiya, Y.Kuwabara, M.Wada, Z.Ayabe, K.Matsuura, A.Nakagawara and K.Ikeda. Kyushu Univ., Fukuoka

We previously reported that MIBG, an analogue of guanethidine, was a useful radiopharmaceutical for the detection of pheochromocytomas. This time, we present the accumulation of MIBG in neuroblastomas. 9 patients before or after surgery were examined. Scans were performed 48 hours after administration of 200-300 µCi of MIBG. Abnormal accumulation was demonstrated on 5 children (primary lesion 3 cases, liver metastasis 1 case, bone metastasis 1 case, skin metastasis 2 cases). 2 children, clinically free of tumor, did not show abnormal uptake.

MIBG may be a useful diagnostic tracer for neuroblastoma.

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A STUDY OF VASCULAR DISTURBANCE OF LOWER LEG IN DIABETICS USING RADIONUCLIDE ANGIO-GRAPHY. H. Ito, T. Shimada, N. Saito, Y. Isogai, Y. Mori

and K.Kawakami. Jikei University School of Medicine, Tokyo.

Radionuclide (RN) angiography had been clinically applied and found to be a useful diagnostic tool for peripheral artery disease.We perform RN angiography of lower leg arteries using Tc-99m MICROSPHERE
ALBUMIN in 72 diabetic patients (56 without gangrene,26 with gangrene).Seventy-two% of them had stenotic or obstructive findings. Incidence of abnormality was high in anterior and posterior tibial arteries and very low in popliteal artery.Sixty-eight% of diabetic group even 40 years old had abnormal findings. The incidence of abnormal findings was compared in the legs with gangrene and without gangrene in order to study the relationship between diabetic gangrene and arteriosclerotic disorder, but no significant relation was obtained. This suggests that diabetics have arteriosclerotic change in lower leg arteries in earlier stage than reported previously and arteriosclerosis may have no great influence on the occurrence of diabetic gangrene.

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THERAPY BY Tc-99m-MISA AND T1-201 ARTERIAL INJECTION.

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Recently attention has been spotted refractory diabetic gangrenes therapy by PGEI (Prostagrandine El). Up to now it has not been Up to now it has not been determined whether the best way to administrate PGEl was intra-arterial injection(I.A.Inj.) or intra-venous injection(I.V.Inj.). Using T1-201 and Tc-99m-MISA (Microspher Albumin), we have compared the two ways of injecting PGE1. We have already reported the shunt rate measured by Tc-99m-MISA method was significantly higher in Diabetic with gangrenes than in those without gangrenes. The treatment of Diabetic gangrenes by PGEl I.A.Inj. was successful and a frequent decrease in the shunt rates was observed, whereas PGE1 did not have any effect and the shunt rate was increased. Therefore PGE1 I.A. Inj. therapy was more effective than PGE1
I.V. Inj. in the treatment of diabetic gangrenes. This suggests that the shunt rates measured by the Tc-99m-MISA I.A.Inj. method can be taken as an objective index in the PGE1 therapeutic efficiency of diabetic gangrenes. There is no difference between Tl-201 I.A.Inj. method and Tc-99m-MISA I.A.Inj. method as to the formation of hot spot corresponding to diabetic gangrenes. But Tc-99m-MISA I.A.Inj. method was thought to be more suitable in the measurement of shunt rates useful for the observation of therapeutic processes, than the T1-201 I.A.Inj. method.

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