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FUNCTIONAL STUDIES OF THE SUBMANDIBULAR GLAND USING Tc-99m PERTECHNETATE IN FACIAL PARALYSIS. M.Nakazawa,T.Shiraishi,Y.Nishiyama,T.Hasegawa,A.Kobayashi,K.Harima,T.Murata,Y.Tanaka,T.Yamashita. Kansai Medical University. Osaka.

38 cases of Bell's palsy were tested for functional studies of the submandibular gland using Tc-99m pertechnetate at 10 days, 3-4 weeks and 8-9 weeks after onset. Other prognostic tests (ex. stapedius reflex, N.E.T.) were also performed for comparison. Examination was started immediately after injection of 3-4mCi of Tc-99m pertechnetate. The data were stored in a computer at 30 sec./frame for 25 min. and later replayed to obtain the time activity curves for the ROI of the submandibular gland. Fifteen min. after injection, salivation was stimulated. We classified the patients into 2 groups: one which recovered within 5 weeks after onset and the other which didn't. There was a direct relationship between these 2 groups and the results of the time activity curves at any time after onset, especially the uptake ratio and the stimulatory secretion ratio (affected side/normal side). Afterwards, the other prognostic tests showed almost the same tendency 5 weeks after onset. But 10 days after onset we could not differentiate these 2 groups by these tests.

From this study, we conclude that the functional study of submandibular glands using Tc-99m pertechnetate might have value in the early prognosis of Bell's palsy.

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DIAGNOSTIC METHOD OF NUCLEAR MEDICINE FOR ASSESSING GASTROESOPHAGEAL REFLUX IN CHILDREN. M.Yano,Y.Sanada,S.Chin,K.Kimura,S.Kohno. Shizuoka Children's Hospital. Shizuoka.

For the purpose to establish the qualitative diagnosis of G.E.R., 41 symptomatic pediatric patients were evaluated by G.E.-R.syntigraphy over 30 minutes. Tc-99m-SHA-MDP used in this study is quite stable in acidic condition and has provided better imaging and time activity curve of the esophagus compared with previously available agents. According to the results of the time activity curve, the patients have been able to be divided into 4 grades which correctly represent the clinical conditions of the patients. Follow-up evaluations of surgically managed patients have been performed as well with satisfactory results. The study is easily repeated because of its short duration and also obviates over-night hospital study. Despite the limited number of the cases, it appears to have several advantages over another diagnostic methods of G.E.R..

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USE OF I-125-POLYVINYL PYRROLIDONE ON THE DIAGNOSIS OF PROTEIN-LOSING GASTROENTEROPATHY. Y.Saito,H.Inoue,N.Chikamochi,T.Nakaki,T.Bamba and S.Hosoda. 2nd Dep. Int.Med., Shiga University of Medical Science. Otsu.

I-125-polyvinyl pyrrolidone (PVP,Amersham, 20μCu) was administered intravenously, and subsequent its serum turn over rate and fecal excretion rate was determined against the patients with Ulcerative colitis,Crohn's disease,non-specific multiple ulcer of small intestine,and primary protein losing gastroenteropathy.

Statistic correlation were obtained between fecal I-125-PVP excretion rate and serum I-125-PVP turn over rate,serum total protein concentration.

Existence of gastrointestinal bleeding (>(+),fecal guaiac test) seemed to increase not only the fecal I-125-PVP excretion and also the serum turn over rate of I-125-PVP administered intravenously. But existence of gastrointestinal bleeding (<(+),fecal guaiactest) does not influence that.

I-125-PVP test is easy to perform and useful for the diagnosis and follow up study of proteinlosing gastroenteropathy.