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Oil Embolism of the Left Lobe of the Liver
A Case Report

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肝左葉に限局したOil Embolismの1例

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従来リンパ管造影後にみられる肝のoil embolismは，腸間膜内におけるリンパ管門脈吻合に基づくものとされ，画像上肝全体に広がる線状影もしくは顆粒影として報告されている．

今回我々は，リンパ管造影後に肝左葉にのみ限局するoil embolismを認め，CTにてその特異な分布を確認し得た一例を経験したので若干の文献的考察を加えて報告し，更に造影剤が肝に到る経路として，従来言われている経路とは別にparaumbilical veinsを介して肝に到達する可能性があることを指摘した．

Hepatic oil embolism (H.O.E.) has been reported as a rare complication of lymphangiography[1)~9)]. Two of such cases were well shown by computed tomography (CT)[8)9)]. Most reported cases revealed diffuse distribution of H.O.E. throughout the liver. Presented here is a case of H.O.E. confined to the left lobe of the liver. We authors believe that no such cases have previously been described.

Case Report

A 49-year-old female was admitted to Kyushu University School of Medicine in January 1979 because of carcinoma of the left ovarian tube. A total hysterectomy and bilateral salpingo-oophorectomy were per-

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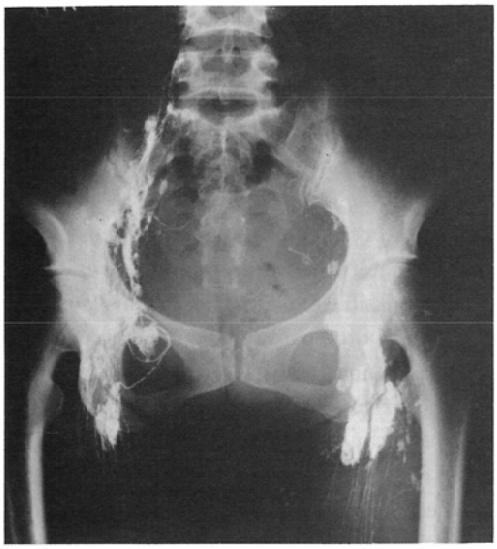

Fig. 1 Lymphangiogram immediately after injection, anteroposterior projection. Note lymphatic obstruction, markedly on the left.

Fig. 2 Lymphangiogram, right anterior oblique projection. Coarse arborizing pattern of the contrast material in the left portal radicles.

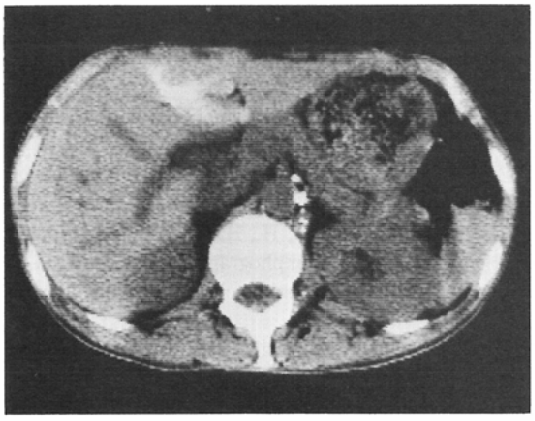

Fig. 3 CT demonstrated the contrast material to be localized in the left hepatic lobe.

formed, following which she was closely observed. She apparently did well until April 1981 when left inguinal lymphadenopathy and leg edema were detected.

Lymphangiography in September 1981 revealed nearly complete obstruction of the lymphatics in the lumbar region on the right, and in the iliac region on the left (Fig. 1). Simultaneously, there was progressive opacification with coarse arborizing structures in the left lobe of the liver (Fig. 2). CT 21 days later demonstrated oil embolism in the left hepatic lobe (Fig. 3).

Discussion

The term H.O.E. was first used by Leger et al. in 1961[1]. In 1965, Chavez showed that the involved contrast material was located in the portal veins[2]. In 1968, Chavez and his coworkers, following their worldwide survey, reported observing H.O.E. in only 36 of 17,000 lymphangiograms, for a prevalence of 0.19%[3]. The radiographic appearence of H.O.E. is described to be of increased density, and ranging from a linear, arborizing, to a granular pattern[6][7]. For years it has been debated as to which pathway the contrast material takes to reach the liver. The most widely prevailing opinion is that this is via the lymphatic-portal venous communications[2][5].

If the contrast material reached the liver via the lymphatic-portal communications in the mesentery, it would have a diffuse distribution throughout the liver. The contrast material in the present case was confined to the left hepatic lobe, and this was well demonstrated by CT. The possible explanations for this localization in the left lobe include: (1) the contrast material can reach the liver via the paraumbilical veins, which normally empty into the left portal radicles, one of the most important anastomoses between the portal circulation and the systemic veins[10][11]; and (2) the contrast material reached the liver via the lymphatic-portal communications in the mesentery and was localized to the left lobe because of obstruction or severe stenosis of the right portal radicles. The normal loboratory data and the fact that CT revealed patency of the right portal radicles suggest that the latter was unlikely. Though the pathway by which the contrast material entered the paraumbilical veins is not clear, we can assume that the contrast material probably reached the left lobe via the paraumbilical veins, to result in its unique distribution in the liver.

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