<table>
<thead>
<tr>
<th>Title</th>
<th>Oil Embolism of the Left Lobe of the Liver A case Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author(s)</td>
<td>村田, 繁利; 蓮尾, 金博; 田村, 正三; 松浦, 啓一; 沼口, 雄治; 岸川, 高; 池田, 純</td>
</tr>
<tr>
<td>Citation</td>
<td>日本医学放射線学会雑誌. 46(2) P.332-P.334</td>
</tr>
<tr>
<td>Issue Date</td>
<td>1986-02-25</td>
</tr>
<tr>
<td>Text Version</td>
<td>publisher</td>
</tr>
<tr>
<td>URL</td>
<td><a href="http://hdl.handle.net/11094/16593">http://hdl.handle.net/11094/16593</a></td>
</tr>
</tbody>
</table>

Osaka University Knowledge Archive : OUKA
https://ir.library.osaka-u.ac.jp/

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

Shigetoshi Murato, Yoji Numaguchi, Takashi Kishikawa, Jun Ikeda
Kanchiro Hasu, Shozo Tamura and Keichi Matsuura

1Department of Radiology, Faculty of Medicine, Kyushu University, Fukuoka 812 Japan
2Department of Radiology, Tulane Medical Center, New Orleans LA 70112 U.S.A.
3Department of Radiology, Saga Medical School, Saga 840, Japan
$Presently Department of Radiology, Matsuyama Red Cross Hospital, Ehime 790, Japan

Research Code No. : 510.1

Key Words : Computed tomography, Liver, Oil embolism, Paraumbilical veins

肝左葉に限局した Oil Embolism の 1 例

九州大学医学部放射線科学教室

村田 繁利$ 蓮尾 金博 田村 正三 松浦 啓一

Department of Radiology, Tulane Medical Center

沼口 雄治

佐賀医科大学放射線部

岸川 高 池田 純

（昭和60年6月3日受付）
（昭和50年9月30日最終原稿受付）

従来リノパ管造影後にみられる肝の oil embolism は、腸間膜内におけるリノパ管門脈間合に基づくものとされ、画像上肝全体に広がる腺状影もしくは顕粒影として報告されている。

今回我々は、リノパ管造影後に肝左葉にのみ限局する oil embolism を認め、CT にてその時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$^1$-$^3$. Two of such cases were well shown by computed tomography (CT)$^4$-$^6$. 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-
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 appearance of H.O.E. is described to be of increased density, and ranging from a linear, arborizing, to a granular pattern[4]. 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[5].

If the contrast material reached the liver via the lymphatic-portal communications in the mesentry, 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[6,7]; and (2) the contrast material reached the liver via the lymphatic-portal communications in the mesentry and was localized to the left lobe because of obstruction or severe stenosis of the right portal radicles. The normal laboratory 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.

Acknowledgment

We thank Dr. Walter J. Russell of Radiation Effects Research Foundation, Hiroshima, for editing this manuscript.

References

2) Chavez, C.M., Barong, L.G., Evers, C.G.: Hepatic oil embolism after lymphangiography. Role of the systemic-opcrta.
3) Chavez, C.M., Picard, J., Davis, D., Fair, W., Corin, H., Hardy, J.: Hepatic oil embolism following lymphography
Presented at the Second International Congress of Lymphography, Miami, Florida, March 1968
4) Hecht, H., Berdon, W., Baker, D.: Hepatic oil embolization following lymphangiography in a child with neuroblastoma
1971
8) Feuerbach, V.S., Rupp, N., Reiser, M., Emmerich, B.: Lipiodolesembole der Leber im Computertomogramm. Fort-
9) Glazer, C.M., Nicol, R.F., Moss, A.A.: CT Demonstration of hepatic oil embolism following lymphangiography. J.
Comput Assist. Tomogr. 5: 413—415, 1981