Case Report

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Retroperitoneal Varicose Veins Simulating Lymph Nodes

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Key Words

Portal hypertension
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Abstract

A case of retroperitoneal varicose veins simulating neoplastic masses in a patient with unknown portal hypertension is presented. The radiological modalities of choice in differential diagnosis are briefly discussed. The use of contrast-enhanced computed tomography is recommended.

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Introduction

Sonography and computed tomography (CT) are nowadays the methods of choice for the examination of retroperitoneal structures. Precaution is necessary in the interpretation of masses, especially in patients with portal hypertension [1].

We report a case in which both scanning techniques demonstrated structures believed to be lymphomas, originating from a testicular neoplasm. Only contrast-enhanced CT scan clarified the diagnosis.

Case Report

A 63-year-old man with a history of alcoholism was admitted because of sepsis due to a urinary tract infection. Intravenous pyelography demonstrated compromised excretion of the left kidney due to a compression of the left ureter by a lobulated mass. Ultrasound examination was performed and this showed retroperitoneal low echogenic masses resembling lymphomas. The fever subsided on medical treatment with antibiotics. A tender testis with a palpable tumor was found on general examination. Biopsy from the testis showed chronic inflammation. Ultrasound examination of the retroperitoneum (fig. 1) was repeated and fine-needle aspiration demonstrated blood. A CT scan confirmed the retroperitoneal masses mimicking lymphomas (fig. 2), but following intravenous contrast administration they were shown to be varicose veins (fig. 3). In addition, the spleen was enlarged and the liver pattern suggested cirrhosis.

Fig. 1. a Transverse scan through upper abdomen showing aorta and varicose veins in the retroperitoneum. b Line drawing showing structures in figure 1 a. A = Aorta; V = varicose veins.

320

Krogh/Bergmann/Jensen

Fig. 2. Transverse CT scan through upper abdomen before intravenous contrast showing retroperitoneal masses. A = Aorta.

Fig. 3. Transverse CT scan through upper abdomen after intravenous contrast showing contrast in aorta (A) and varicose veins (V) in front of and to the left of aorta.

Conclusion

Sonography and CT have almost replaced lymphography in diagnosing retroperitoneal lymphomas. They have the advantage of being noninvasive and showing all enlarged retroperitoneal lymph nodes in contrast to lymphography which only demonstrates a limited number of nodes, primarily surrounding the middle and lower part of the aorta and inferior vena cava. Sonographically the lymph nodes are often hypoechoic or anechoic and resemble cysts and cannot be distinguished from dilated vascular structures in patients with portal hypertension [2]. The use of real-time imaging and Doppler ultrasound has been suggested as the best noninvasive investigation [3].

CT routinely displays all the major lymph nodes in the abdomen and contrast-enhanced CT is only necessary to define the vascular anatomy [4]. However, in differentiating retroperitoneal varicose veins from lymph nodes contrast-enhanced CT is needed [5]. The final confirmation of the nature of retroperitoneal masses may depend upon angiography as the two modalities seem to be complementary in detecting varicose veins [6].

In our patient the liver disease was not kept in mind and the causal relation of testis cancer to metastases in retroperitoneal lymph nodes was obvious. In patients with portal hypertension, varicose veins may mimic lymphomas in scanning technics. Contrast-enhanced CT may be needed to avoid unnecessary punctures or operative intervention [7].

References

- Ishikawa, T.; Tsukune, Y.; Ohyama, Y.; Fujikawa, M.; Sakuya-ma, K.; Fujii, M.: Venous abnormalities in portal hypertension demonstrated by CT. *Am. J. Roentg.* 134: 271–276 (1980).
- Hilman, B.J.; Haber, K.: Echographic characteristics of malignant lymph nodes. *J. clin. Ultrasound* 8: 213–215 (1980).
- Chou, Y.; Tiu, C.; Pan, H.; Chang, T.; Chiang, J.; Yang, C.: Intra- and retroperitoneal varices simulating lymphomatous nodes: differentiation by Duplex ultrasound. *J. Formosan med. Ass.* 85: 1139–1143(1986).
- Korobkin, M.: Computed tomography of the retroperitoneal vasculature and lymph nodes. *Semin. Roentgenol.* 16: 251–267 (1981).
- Gould, H.; Benjamin, S.; Alter, A.J.; Crummy, A.B.; Atwell, D.T.: Retroperitoneal varices simulating masses. *Gastrointest. Radiol.* 7:335–336(1982).
- McCain, A.H.; Bernadino, M.E.; Sones, P.J.; Berkman, W.A.; Casarella, W.J.: Varices from portal hypertension: Correlation of CT and angiography. *Radiology* 154: 63–69 (1985).
- Creed, L.; Reger, K.; Pond, G.D.; Aapro, M.: Potential pitfall in CT and sonographic evaluation of suspected lymphoma. *Am. J. Roentg.* 139: 606–607 (1982).

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