Development of Geographic Fatty Liver

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Picture.

Geographic fatty liver is sometimes revealed on computed tomography (CT) images. In patients with this condition, perivascular fat deposition characterized by halos of fat surrounding the hepatic and/or portal vein develops; however, the pathogenesis remains unknown (1, 2).

A 30-year-old man developed severe alcoholic hepatitis. Initial abdominal CT revealed homogeneous fatty liver with mild maldistribution of the arterioportal blood flow. After five months of abstinence, CT showed a resolution of the

steatosis in addition to the development of more obvious arterioportal maldistribution, possibly associated with liver regeneration. Dominant areas of arterial flow were enhanced geographically in the arterial phase and became obscure in the portal phase. Two years after the initial examination, the patient began drinking again, and CT disclosed geographic periportal fat deposition throughout the entire liver. The areas without fat deposition corresponded approximately to arterial dominant areas.

Accordingly, a territorial reduction of the portal blood flow may have contributed to the formation of geographic fatty liver in this patient.

The authors state that they have no Conflict of Interest (COI).

References

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