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CLASSICS IN ABDOMINAL RADIOLOGY

# Classics in abdominal imaging: the atoll sign

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An atoll is a circular-shaped coral reef or string of islands that separates a central body of water (a lagoon) from the surrounding sea (Fig. 1). The atoll sign describes the imaging appearance of an inflammatory hepatocellular adenoma (HCA) on T2-weighted MRI sequences (Fig. 2): a hyperintense rim along the periphery of the mass (the atoll) with a central core (the lagoon) [1]. The T2-hyperintense rim has been attributed to dilated sinusoids. In portal venous and delayed phases, the peripheral rim shows hyperenhancement. Of all HCA subtypes, inflammatory HCAs are associated with the highest risk of hemorrhage likely due to dilated sinusoids and increased vascularity [2]. Although the sign is considered characteristic for an inflammatory HCA, it is only present in about 40% of cases [1].

**Fig. 1** Satellite image of the Tureia Atoll in French Polynesia (image provided by NASA's Earth Observatory)

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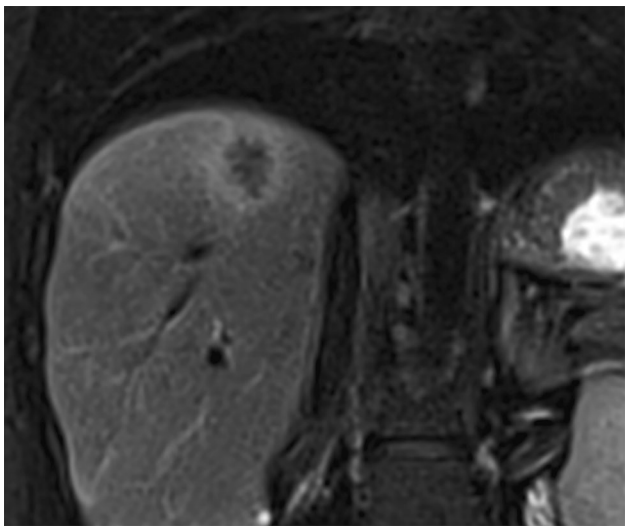

**Fig. 2** Coronal T2-weighted single-shot turbo spin echo with fat suppression shows a peripheral rim (the atoll) that is hyperintense to the mass (the lagoon) and the background liver (the surrounding sea)

## Compliance with ethical standards

**Conflict of interest** The authors declare that they have no conflict of interest.

**Ethical approval** This article does not contain any studies with human participants or animals performed by any of the authors.

**Informed consent** Statement of informed consent was not applicable since the manuscript does not contain any patient data.

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