



The “linguine” sign

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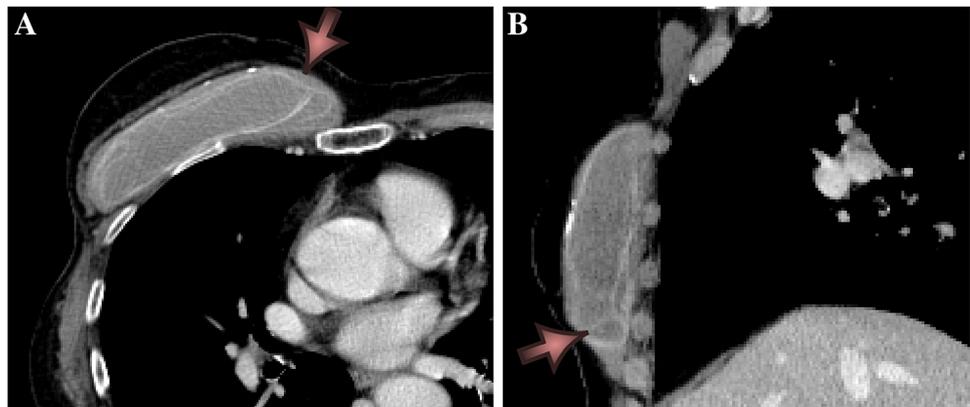
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The “linguine” sign metaphorically describes the imaging appearance of intracapsular rupture of a silicone breast implant [1]. As the most commonly performed cosmetic procedure in the US, all radiologists should be familiar with complications related to breast augmentation, as occasionally, the “linguine” sign will be encountered on the upper images of an abdominal computed tomography (CT) scan (Fig. 1a, b).

The most commonly implanted prosthesis is a single-lumen silicone prosthesis containing silicone gel within an outer elastomeric silicone shell [1]. A fibrous capsule forms around the elastomeric silicone shell after placement. With

intracapsular rupture of the implant, multiple curvilinear lines are present within the implant representing layers of the collapsed elastomeric shell floating in the silicone gel, which is contained within the fibrous capsule [1]. Linguine (Fig. 2), the broad pasta, is used to metaphorically describe the imaging findings of the ruptured silicone breast implant. While the linguine sign may be more commonly encountered on magnetic resonance (MR) evaluation of implant complications (Fig. 3), this finding can be incidentally encountered on the upper most images of an abdominal CT examination. Given an approximate 1% complication rate

Fig. 1 Axial CT image (a), and sagittal CT image (b) through the lower chest demonstrating the presence of an incidental linguine sign indicating intracapsular rupture of silicone implant in the right breast, as denoted by the red arrows



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Fig. 2 Linguine. Adapted from https://www.google.com/search?q=squid+ink+linguine&source=lnms&tbn=isch&sa=X&ved=0ahUKEwidqNPF_YDdAhWSrVMKHyl_CXcQ_AUICygC&biw=1920&bih=974#imgrc=Yee_Kz1HC7DpOM: 8/22/2018 11:33 AM

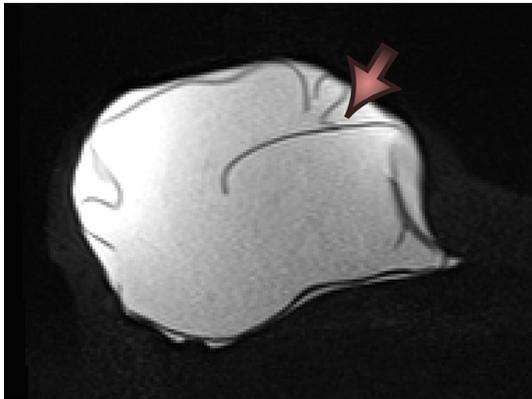


Fig. 3 Axial T2-weighted short-tau inversion-recovery H₂O suppression MR image (9030/73 [repetition time (ms)/echo time (ms)]) obtained with fat suppression shows intracapsular rupture of a silicone breast implant, as indicated by the presence of the linguine sign (red arrow)

for breast augmentation, practicing radiologists of all subspecialties will likely encounter the problem and should be able to offer an accurate diagnosis [3].

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Compliance with ethical standards

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

Research involving human and animal rights This article does not contain any studies with human participants or animals performed by any of the authors.

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