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Figure 1. Bedside ultrasonography: stone (asterisk) and dilated duct (d).



Figure 2. CT of neck, with intravenous contrast; stone (arrow), and dilated duct. Used with permission of Michael B. Stone, MD, RDMS, Department of Emergency Medicine, SUNY Downstate/Kings County Hospital Center, Brooklyn, NY.

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A 60-year-old woman with no medical history presented with 2 days of unilateral left-sided facial pain and swelling. Physical examination demonstrated marked edema, erythema, and tenderness over the left side of her face, just anterior to the mandibular ramus. After initial stabilization and analgesia, the treating emergency physician performed bedside ultrasonography of the affected area that demonstrated a discrete echo with distal shadowing and a dilated fluid-filled structure (Figure 1). Computed tomography (CT) with intravenous contrast confirmed these findings (Figure 2) and excluded the presence of associated abscess. The patient was admitted to the otolaryngology service, where she received parenteral analgesia, parotid massage, antibiotics, warm compresses, and sialogogues. She recovered uneventfully and the following month underwent an elective left-sided partial parotidectomy without complication.

*For the diagnosis and teaching points, see page e4.
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DIAGNOSIS:

Sialolithiasis of the parotid gland. Sialolithiasis most commonly affects the submandibular glands but can involve the parotid gland in 10% to 20% of cases.¹ Although digital sialography and magnetic resonance sialography are considered standard imaging modalities, ultrasonography is a noninvasive, bedside alternative that is often used as a primary modality, especially in Europe.² Ultrasonography enables visualization of stones and, in cases of complete mechanical obstruction, detection of dilated intraglandular ducts.³

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