



FIGURE 1. Weekly report of the secondary cases among the patient and the medical team during the 9 weeks of the epidemic. Arrows are positioned at 3 key moments. Note the effect of mass treatment on the declaration of new cases.

decision was supported by the result of a recent trial.<sup>5</sup> The approach taken was also more economic and ensured higher compliance.

This strategy was successful and helped us contain the epidemic reported here in a relatively short period of time compared to previous nosocomial epidemics, which have been known to last up to 1 year.<sup>6</sup>

#### ACKNOWLEDGMENTS

We thank Marie-Christine Michellet and Fiona Caulfield for the English correction.

*Financial support:* No financial support was provided relevant to this article.

*Potential conflicts of interest:* All authors report no conflicts of interest relevant to this article.

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*Infect Control Hosp Epidemiol* 2018;39:631–632

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## Lifesaving *Streptococcus bovis* Surgical Site Infection

*To the Editor*—Surgical site infections (SSIs) are undesired and serious complications following spinal surgery.<sup>1,2</sup> However, despite full adherence to various protocols for the reduction of SSI, they continue to occur.<sup>1,2</sup> We report a case of nonpreventable SSI, which certainly complicated the patient's medical management; however, it ultimately saved his life from invasive, metastatic cancer.

This patient was a 54-year-old diabetic male with a 40 pack-year smoking history and chronic low back pain. He underwent decompression and fusion of L4–L5, with pedicle screws, intervertebral body fusion, and graft placement

3 weeks earlier. He was discharged to home with good early postoperative healing. Three weeks later, he noted a “pimple-like” lesion at the surgical site that spontaneously drained with worsening of his back pain. He was admitted to the hospital with normal vital signs, white blood cell count (WBC) of 9,000 mL/mm<sup>3</sup> with neutrophilic predominance and an erythrocyte sedimentation rate (ESR) of 109 mm per hour. A magnetic resonance image (MRI) demonstrated fluid collection within subcutaneous tissues (measuring 2.1×1.7×8.5 cm) and deeper tissues at the L3–S1 level, extending into the spinal canal without compression and evidence of L4–L5 acute discitis and osteomyelitis. The patient underwent debridement from a posterior approach, which revealed a purulent subcutaneous fluid pocket. Cultures yielded growth of *Streptococcus* spp later identified as *S. bovis*. Due to the well-known association with colon cancer, the patient underwent colonoscopy, which revealed well-differentiated adenocarcinoma of the sigmoid colon. A computed tomography (CT) scan of the abdomen and pelvis was negative for metastatic lesions, and a transthoracic echocardiogram was normal. He underwent an open sigmoid colectomy demonstrating clear margins and negative lymph nodes. Further speciation of *S. bovis* revealed that it was *S. gallolyticus* subsp *pasteurianus*. The patient was treated with 4 weeks of ceftriaxone followed by 4 weeks of amoxicillin. He made a full recovery from both the colectomy and the spinal surgeries with no apparent long-term consequences 3 years later.

*Streptococcus bovis* is a gram-positive coccus and forms part of the normal intestinal flora of ~10% of healthy adults.<sup>3,4</sup> This species underwent extensive taxonomic change in 2003.<sup>3,4</sup> Currently, 7 different strains represent the *S. bovis*/*S. equinus* complex: *S. equinus*, *S. infantarius* subsp *coli* (biotype II/1), *S. infantarius* subsp *infantarius* (biotype II/1), *S. alactolyticus*, *S. gallolyticus* subsp *gallolyticus* (biotype I), *S. gallolyticus* subsp *pasteurianus* (biotype II/ 2), and *S. gallolyticus* subsp *macedonicus*.<sup>4,5</sup> However, the published literature does not distinguish *S. bovis* isolates to the subspecies level consistently, which often requires sequencing of the 16S rRNA gene for accurate identification.<sup>3–5</sup> This nomenclature change has created confusion among clinicians because the link between infections with this microbe and colorectal neoplasms may be missed due to a lack of awareness of the new species names.<sup>3,4</sup> In general, evaluation by colonoscopy and echocardiography is recommended for all patients who develop *S. bovis* infection.<sup>3–6</sup> An important property of this microbe is its ability to adhere to various proteins of the extracellular matrix, such as collagen, fibronectin, and fibrin, which is a mechanism thought to be important in the pathogenesis of endocarditis, as well as dissemination to prosthetic material, as in our case.<sup>3–6</sup> Treatment of *S. bovis* infection typically consists of a  $\beta$ -lactam (penicillin G, ampicillin, or ceftriaxone) with or without aminoglycoside, with vancomycin reserved for patients unable to tolerate the  $\beta$ -lactams for a minimum of 4 or 6 weeks.<sup>3,6</sup>

Our patient was found to have bacterial invasion of his recent lumbar surgery site with *S. bovis*. It is not clear whether he had asymptomatic bacteremia with this organism prior to surgery or the bacteremia developed after the surgery. Nevertheless, this SSI was nonpreventable despite adherence to the established guidelines for prevention of SSI. To the best of our knowledge, no previous case of early (<30 days) spinal or prosthetic joint SSI due to *S. bovis* has been reported. Similar to the central-line-associated bloodstream infection list of mucosal barrier injury pathogens, we propose adding a category of SSI caused by such organisms because current infection prevention measures are unlikely to be effective in these types of SSIs.

#### ACKNOWLEDGMENTS

*Financial support:* No financial support was provided relevant to this article.

*Potential conflicts of interest:* All authors report no conflicts of interest relevant to this article.

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