Pyomyositis is a rare but acute intramuscular abscess, always occurred in young people and proposed to be caused by transient bacteremia rather than local extension of a contiguous infection. Many cases had a history of trauma to the affected muscles. However, the source of the bacteremia is hard to pursue. Here, we present an 88-year-old patient who had chest contusion just after tooth extraction and left pectoralis major pyomyositis developed days later. After emergent surgical intervention and medical care, he regained his health. Dental procedures included tooth extraction often result in transient bacteremia and maybe persist for a considerable time. This condition is a possible precipitating factor for pyomyositis, and it provides a possible cause for the development of pyomyositis in such a rare region. By the way, maybe he is the oldest patient with pyomyositis according to a Medline search.