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Case Report

Septic arthritis due to *Sneathia sanguinegens* in a male. First case described in the scientific literature[☆]

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ABSTRACT

An 88-year-old male admitted with septic shoulder arthritis due to a gram-negative bacillus. The microorganism is identified by sequencing the 16 S rDNA gene as *Sneathia sanguinegens*. This is the first case described in the literature in a male, since so far only infections in women of childbearing age have been described.

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Artritis séptica por *Sneathia sanguinegens* en un varón. Primer caso descrito en la literatura científica

RESUMEN

Varón 88 años que ingresa por artritis séptica de hombro por un bacilo gram negativo. Se identifica el microorganismo mediante secuenciación del gen 16 S ADNr como *Sneathia sanguinegens*. Se trata del primer caso descrito en la literatura en un varón, ya que hasta el momento solo se habían descrito infecciones en mujeres en edad fértil

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Palabras clave:

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In September 2016 an 88 year-old man was admitted to our hospital (*Hospital Universitario La Plana*) with a basal Barthel index of 100, without any relevant medical or surgical history. He described intense pain in the right shoulder that had developed over 24 hrs. with difficulty in moving and fever of up to 38 °C, with gradual deterioration of his general condition.

The local increase in temperature in the shoulder was a striking finding in the examination. He had not suffered any recent injury, surgery or invasive test. In the analytical tests 135,00 mm³ with 89%

neutrophils stood out, creatinine 3.20 mg/dl (the previous figures were normal) and C reactive protein (CRP) was 38.07 mg/dl.

An ultrasound scan of the shoulder was requested, finding a large accumulation in the lateral face of the arm that extended towards the glenohumeral joint and bicipital groove. Intensive treatment was initiated with fluids, vasoactive drugs and broad spectrum antibiotic therapy with meropenem and linezolid.

Arthrocentesis was performed with extraction of purulent liquid with infectious semiology. Samples of joint fluid were sent to microbiology and haemocultures were extracted in aerobic and anaerobic media. The accumulated fluid was drained by trauma and the joint was surgically cleaned. The patient was without fever 36 hrs. after admission.

After receiving the sample, the microbiology laboratory reported that extremely abundant leukocytes and Gram negative

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bacilli were observed in the Gram stain. The sample was sown in chocolate agar, blood agar, MacConkey agar and thioglycollate broth. After 3 days' incubation, the laboratory issued a negative culture report. The sample was sent to a reference hospital (Valencia General Hospital), which reported the identification of a microorganism identified by sequencing of the 16S DNAr gene as *Sneathia sanguinegens*.

Sneathia is a pathogen of the female genital tract flora¹ that is involved in bacteraemia and neonatal sepsis,² premature births,³ septic arthritis⁴ and post-partum endocarditis,⁵ as well as non-gonococcal urethritis in the male partners of women with bacterial vaginosis.⁶ It is a Gram negative anaerobic bacillus that grows with difficulty in the usual media, is immobile and does not form spores. Until 2012 this bacteria was denominated *Leptotrichia*, but it was reclassified in the *Sneathia* genus due to its phenotypic and phylogenetic characteristics. It requires highly specific culture conditions in anaerobic media. After several days of incubation very small grey flat 1 mm diameter colonies grow, displaying alpha-haemolytic activity.^{7,8} Filamentous Gram negative bacilli were visualised with the Gram stain. Two species have been found to date: *S. sanguinegens* and *S. amnii*. Both of them are strictly anaerobic. *S. sanguinegens* cannot be cultured in the majority of cases, as happened in this case. The use of genetic diagnostic techniques enables correct and precise identification.

S. sanguinegens is sensitive to clindamycin, amoxicillin, amoxicillin-clavulanic acid, penicillin, some of the third-generation cephalosporins and the majority of the carbapenems, and it is vancomycin resistant.^{5,9}

We present this case as it is the first infection by *S. sanguinegens* described in the scientific literature in men without recent sexual contact.

Conflict of interests

The authors have no conflict of interests to declare.

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