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CLINICAL CASE

Abdominal wall actinomycosis. Report of a case☆

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KEYWORDS
Abdominal mass;
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Abstract
Background: Abdominal wall actinomycosis is a rare disease associated with the use of intrauterine device and as a complication of abdominal surgery. Diagnosis is difficult because it is unusual and behaves like a malignant neoplasm.
Aim: A case report is presented of a patient who had used an intrauterine device for 4 years and developed a stony tumour in the abdominal wall associated with a set of symptoms that, clinically and radiologically, was simulating a peritoneal carcinomatosis associated with paraneoplastic syndrome, even in the course of an exploratory laparotomy.
Clinical case: The patient attended our hospital with a 2-month history of abdominal pain and symptoms that mimic a paraneoplastic syndrome. The diagnosis of abdominal actinomycosis was suspected by the finding of the microorganism in cervical cytology together with other cultures and *Actinomyces* negative in pathological studies, confirming the suspicion of a complete cure with empirical treatment with penicillin.
Conclusions: Actinomycosis should be considered in patients with pelvic mass or abdominal wall mass that mimics a malignancy. Antibiotic therapy is the first treatment choice and makes a more invasive surgical management unnecessary.

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PALABRAS CLAVE
Tumor abdominal;
Actinomyces;
Dispositivo intrauterino;
Penicilina

Actinomicosis de pared abdominal. A propósito de un caso

Resumen
Antecedentes: La actinomicosis de pared abdominal es un cuadro clínico poco frecuente, asociado al uso de dispositivo intrauterino, o como complicación de cirugía abdominal. Su diagnóstico es difícil por ser poco habitual y comportarse como una neoplasia maligna.
Objetivos: Presentamos el caso de una paciente portadora de DIU desde hacía cuatro años que presentaba un tumor pétreo en pared abdominal asociada a un conjunto de síntomas que, clínica y radiológicamente, simulaba una carcinomatosis peritoneal asociada a síndrome paraneoplásico, incluso en el curso de una laparotomía exploradora.
Caso clínico: La paciente acudió a nuestro hospital con un cuadro de dos meses de evolución con dolor abdominal y síntomas que simulaban un síndrome paraneoplásico. El diagnóstico de sospecha se realizó por el hallazgo del microorganismo en una citología cervical con el resto de cultivos y estudios anatomopatológicos negativos para *Actinomyces*, confirmándose por la curación completa con el tratamiento empírico con penicilina.
Conclusiones: La actinomicosis debe ser sospechada en pacientes con tumores pélvicos o de pared abdominal que simulan procesos malignos. El tratamiento antibiótico es el de elección y hace innecesario el manejo quirúrgico más agresivo.

Background

Infection by *Actinomyces* is a slow progression chronic bacterial disease caused by Gram-positive, anaerobic, non-spore-forming germs typically colonising the mouth, colon and vagina.[1] This infection occurs in immunocompetent patients, with anatomical barriers as disruptive gateway, which slowly allow the access of the commensal bacteria of the mucosa to the deep tissues by adjacency, causing the formation of sole or multiple abscesses surrounded by fibrosis granulation tissue, which makes the surface hard, simulating neoplasm involvement.[2] The final diagnosis is reached with proof of sulphur granules in pus or histological sections of a surgical sample.

Actinomycosis has been called ''the great mimicker'' in clinical practice. There are multiple cases in medical literature of pelvic actinomycosis mimicking malignant neoplasms,[3,4] leading to an entirely different management of the disease. The proper treatment is penicillin, with surgical drainage of abscesses in the event of therapeutic failure.[2]

We present the case of a patient who had an copper intrauterine device (IUD) for 4 years, with a stone tumour in abdominal wall associated to a set of symptoms which, clinically and radiologically, mimicked a peritoneal carcinomatosis associated to paraneoplastic syndrome, even in the course of an exploratory laparotomy.

Clinical case

We present the case of a patient, 49 years old, admitted to the emergency department at our hospital who had continuous hypogastric pain for a month associated to 12 kg weight loss, anorexia, nausea and vomiting, with no rhythm alteration or fever. She mentioned a history of eight voluntary abortions and being a carrier of a copper intrauterine device (IUD) for 4 years, withdrawn 2 months previously during a gynaecological examination.

Laboratory results upon admission to the emergency department proved severe anaemia (haemoglobin 8.2 g/dl), leukocytes 17.6/mm^3 with left shift, platelets 546/mm^3, prothrombin time 13.8, prothrombin activity 70, normal biochemistry. Tumour markers Ca 125 and Ca 19.9 are negative. The vaginal and abdominal ultrasound scan reports normal anteverted position of the uterus, poorly delimited, with a 3 cm fibroid in the right edge; in the left ovary, heterogeneous and irregular image, solid-cystic, 51 mm $\times$ 43 mm $\times$ 67 mm, with large vascularisation and high resistance flows, suggesting inflammatory process; right ovary apparently normal although difficult to evaluate. In the abdominal wall, a tumour is described towards the right iliac fossa, 81 mm $\times$ 45 mm $\times$ 71 mm with large vascularisation and characteristics similar to the left adnexal tumour, interpreted as peritoneal carcinomatosis in the context of left ovarian tumour suspected of malignancy. No free fluid in pouch of Douglas (Figs. 1 and 2).

She is admitted for examination with this suspected diagnosis. During examination, fever spikes of up to 38.5 °C and very bad condition in general is detected. After 6 days of admission, a computerised axial tomography is performed, reporting extensive density areas, irregular soft parts obliterating fat planes of the pelvic region, including hypodense areas suggesting fluid collection in the left periuterine and periadnexal regions, with involved uterus and adnexal regions; said involvement has multifocal contact with the rectosigmoideal region, with slight associated wall thickening; several areas of loops contiguous to pelvic involvement, with potential secondary involvement, with no significant retrograde distension suggesting obstructive repercussion. Anterior superior extension of the density areas of soft parts towards the anterior abdominal wall, with light thickening