



# Iodide mumps in patients with chronic kidney failure, role of haemodialysis

## Sialoadenitis por contrastes iodados en pacientes con insuficiencia renal crónica, papel de la hemodiálisis

Mr. Director,

Iodinated contrast sialadenitis is a term used to define a condition characterized by inflammation of one or more salivary glands of a non-painful but bothersome nature,<sup>1</sup> in patients with renal insufficiency who have undergone imaging studies using iodinated contrast.

Symptoms usually begin from a few minutes to 5 days after contrast administration,<sup>2</sup> causing great discomfort and, in the most severe cases, dysphagia, feeling of respiratory difficulty and intense mouth dryness. Although it is not life-threatening, specialists may consider it as a potential danger, which frequently leads them to reject the administration of iodinated contrast, which may reduce the sensitivity of the imaging test, or even to dispense with the tests. At present there is no data available on effective therapy for its prevention or its rapid resolution.

We describe 3 cases from in our clinic with a diagnosis of iodinated contrast sialadenitis, evaluating the efficacy of hemodialysis performed immediately after the radiological examination.

**Case 1.** 80-year-old woman, with past medical history of thyroidectomy more than 40 years ago (in treatment with eutirox), advanced chronic kidney disease of unknown origin, undergoing regular hemodialysis, who 24 h after administration of iodinated contrast (iopromide) for fistulography to evaluate fistula patency presents submaxillary swelling. Symptoms resolved within 48 h of administration of methylprednisolone. Referred to our office for evaluation, we performed hypersensitivity skin tests (prick and intradermal) with iopromide (300 and 30 mg/ml), ioversol (240 and 24 mg/ml), iobitridol (350 and 35 mg/ml), iodixanol (270 and 27 mg/ml) with positive (histamine 10 mg/ml) and negative (physiological saline) control, giving negative results in immediate and delayed reading. Even considering that the use of another contrast would not have avoided the reaction, we recommended using an alternative (ioversol) and hemodialysis was proposed as soon as possible after the radiological imaging study was performed. The result is that she has not presented additional episodes of sialadenitis, having undergone at least 3 different studies with iodinated contrasts (fistulography and abdominal CT).

**Case 2.** 48-year-old male, diagnosed with advanced chronic renal disease, of unknown etiology, arterial hypertension, secondary hyperparathyroidism, renal transplantation in 2000, with chronic rejection/resumption of hemodialysis and multiple thrombosis of internal arteriovenous fistulas. In the last 2 fistulographies with iopromide, within 48 h he presented edema in the mandibular/neck region, predominantly on the right side as observed by ENT, who diagnosed right parotiditis. The symptoms resolved in 72 h. An allergy study similar to the previous case was also negative. No specific contrast was recommended and immediate hemodialysis was indicated after the imaging study. Since then, the patient has undergone an abdominopelvic CT scan and phlebography with adequate tolerance and no manifestations compatible with sialadenitis.

**Case 3.** 22-year-old woman with a diagnosis of advanced chronic kidney disease of unknown etiology, renal transplant with rejection and restarting hemodialysis (4 times a week), secondary hyperparathyroidism, nephrogenic arterial hypertension and ischemic heart disease. For the last 10 years, every time she has undergone radiological examination with iodinated contrast (the last studies with iopromide), she presented 12–24 h later with painless swelling in the angle of the mandible and lateral sides of the neck, with mild dysphagia and dry mouth. The allergy study with contrasts was negative as in the other cases. In coordination with the nephrology department, hemodialysis was recommended immediately after the diagnostic procedure with contrasts. Since then, she has not had these episodes, tolerating subsequent phlebography without adverse reaction.

### Discussion

Sialadenitis due to iodinated contrast media is a rare pathology that generally affects patients with chronic renal insufficiency, since the contrast elimination is altered. Most of the iodine is eliminated via the kidneys and the rest via the salivary, sweat and lacrimal glands,<sup>3</sup> and the introduction of non-ionic contrast media does not eliminate the risk of developing sialadenitis.<sup>4</sup> We do not know the exact pathophysiological mechanism that causes an accumulation of inorganic iodine in the glandular tissue and salivary secretion, with a secondary inflammatory process with mucosal edema and obstruction of the ducts resulting in sialoadenitis.<sup>3</sup> Although the pathophysiological mechanism is unknown, the probability of developing sialadenitis is directly proportional to serum iodine levels (>10 mg/100 ml)

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and inversely related to renal function.<sup>5</sup> The course is usually benign, but occasionally produces variable types of discomfort and intensity. Therapeutic management includes treatment with NSAIDs and dialysis. The use of antihistamines and corticosteroids does not seem to be useful, since inflammation is not derived from mast cell or leukocyte mediators<sup>6</sup> and in our patients did not provide benefits.

Accelerated resolution of one case has been published with the use of dialysis,<sup>7</sup> suggesting that this intervention could be used in more severe cases.<sup>3</sup>

Patients with advanced chronic kidney disease on hemodialysis frequently require fistulography to assess vascular permeability. In this population, the use of iodinated contrasts in imaging techniques is a priority.

In our cases, immediate hemodialysis (approximately one hour) after contrast administration was effective and prevented the appearance of sialadenitis, so this therapeutic approach should be considered in the management of these patients.

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## Conflicts of interest

The authors have no conflicts of interest to declare.

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# Elevated creatinine and normal cystatin levels in patient receiving ribociclib

## Niveles de creatinina elevados y cistatina normales en un paciente que recibe ribociclib



Dear Editor,

Breast cancer is the most common cancer among the female population, of which the hormone-positive HR subtype<sup>+</sup> (HER2<sup>+</sup>) comprises 75% of cases. Treatment with protein

kinase inhibitors, specifically cyclin-dependent kinase 4/6 (CKD4/6) inhibitors have been successful in improving both prognosis and survival in combination with aromatase inhibitors.<sup>1-3</sup> Ribociclib is a CKD4/6 inhibitor used in this disease, which has been associated with a number of adverse effects, including renal failure.<sup>4,5</sup>

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