

Iodide mumps: A rare complication of iodine-containing contrast after coronary angioplasty

Fatemeh Baharvand, **Asghar Mohamadi**¹
 Cardiovascular Research Center, Tehran Heart Centre, Tehran
 University of Medical Sciences; Tehran-Iran
¹Cardiovascular Research Center, Shahid Rahimi Hospital, Lorestan
 University of Medical Sciences; Khoramabad-Iran

Introduction

Exposure to iodine-containing contrast may have some side effects, of which anaphylactoid reaction is a common effect; however, other adverse effects are uncommon (1). Iodide mumps is a rare complication that occurred after the administration of intravascular iodine-containing contrast. This complication introduced painless swelling in bilateral or unilateral submandibular or sublingual glands (1, 2). The true incidence of this adverse reaction remains unclear and some researchers believe that it may be underdiagnosed (3). However, a study has reported that the incidence is nearly 1%–2% (4). We herein report a rare case of iodide mumps following coronary angioplasty where the patient suffered from this complication.

Case Report

An Iranian 71-year-old man with a history of recent paroxysmal palpitation for which the cause was revealed as atrioventricular nodal re-entry tachycardia arrhythmia via electrocardiography was admitted to the hospital to perform slow pathway ablation. He did not have any history of allergies and had never previously received iodine-containing contrast. The patient's kidney function and other laboratory findings were normal. Because of documented rising in cardiac troponin (CTNI: 78 ng/dL) at the time of the last arrhythmia, coronary angiography was performed during the session of ablation. Coronary angiography revealed significant stenosis in the mid part of the right coronary artery (RCA) (Fig. 1), and then the patient was scheduled for percutaneous intervention for RCA. The procedure was successfully performed with 160 cc of nonionic contrast agent visipaque 320. The patient was then transferred to the post-catheterization ward while palpitation subsided completely; 12 h later, the patient started to feel pain in the submandibular region with a progressive swelling of the same region (Fig. 2 and 3). A palpable submandibular moderately firm and non-tender mass (approximately 5×5 cm on each side) was revealed through physical examination.

The patient was afebrile and there were no other symptoms such as dyspnea or dysphagia. Sonography revealed bilateral submandibular salivary glands and lymph node swelling. Ac-



Figure 1. CAG showed significant (80%) right coronary artery proximal stenosis



Figure 2. Physical exam revealed a palpable submandibular mass which was firm and non tender (anterior view)

cording to these findings, iodide mumps was diagnosed and the patient was treated with hydrocortisone 50 mg every 12 h, and after 24 h the symptoms relatively resolved and the patients was discharged from the hospital.

Discussion

Iodide sialadenitis was reported for the first time in 1956 by Miller and Sussman (5). It is also termed iodide mumps (5). The majority of iodine-containing contrast secrete to urine and remainder secrete to salivary glands and sweat glands (6). The concentration of iodine in salivary glands is more than the plasma level (7); thus, the salivary glands may be involved due to this reactive material. The exact pathogenesis of this complication remains unknown. However, some researchers have hypothesized that the idiosyncratic or toxic accumulation in the salivary glands may be



Figure 3. Partial recovery 24 hours after treatment (lateral view)

included and the possible mechanism that is proposed is edema and ductal obstruction in the salivary glands (8). Regarding our case, there are three interesting points. First, in contrast with other cases (9), in our case the kidney function test was normal. Thus, this notion that kidney failure may be involved in the pathogenesis of this adverse reaction is not plausible. Second, in our case, this adverse reaction occurred after a low dose of iodine-containing material, while in previous studies iodide mumps occurred due to excessive injection of iodine material (10). Third, although patients with iodide mumps experience painless swelling in the salivary glands, the patient in our case experienced a medium pain in the submandibular region. A study reported that iodide mumps occurred with thyroiditis (9). However, in our case the complication was isolated to the salivary glands. The routine treatment of iodide mumps is empirical with steroid, antihistamines, nonsteroidal anti-inflammatory drugs, and a combination of these medicines (11); our case received only steroid (hydrocortisone 50-mg BD intravenously) and the symptoms were resolved dramatically after 24 h. Although this unusual reaction may recur, there is no premedication to prevent this complication (12). The purpose of this case report is to make interventional cardiologists aware of this rare complication in patients who have undergone coronary angiography and have received iodine-containing contrast.

Conclusion

Iodide mumps is a rare side effect of iodine-containing contrast after coronary angioplasty that resolve after short period of time without any complication.

Informed consent: Informed consent was obtained from this patient.

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Address for Correspondence: Asghar Mohamadi, MSC,
Cardiovascular Research Center,
Shahid Rahimi Hospital,
Lorestan University of Medical Sciences;
Khoramabad-Iran
Phone: 98 663 222 8901

E-mail: asgharheart@gmail.com

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