CASE REPORT

“Iodide Mumps” After Angioplasty

J. Chuen, N. Roberts, M. Lovelock, B. King*, B. Beiles and G. Frydman

Vascular Surgery Unit, Western Hospital Footscray, Melbourne, Victoria, Australia

Introduction

Vascular surgeons are increasingly performing endovascular fluoroscopy-guided procedures. We report a rare complication of radiographic contrast exposure (iodide-induced sialadenitis or “iodide mumps”), which has significance in the postoperative observation and management of patients after these procedures.

Case Report

A 70-year-old man presented with a history of bilateral, short-distance claudication. He was not diabetic or hyperlipidaemic, but was hypertensive and an ex-smoker for 40 years. There was no history of renal impairment. His only medications were prazosin and hydrochlorothiazide with amiloride.

Ankle–brachial indices of the left and right legs, respectively, were 0.75 and 0.78 at rest and 0.4 and 0.57 post-exercise. Diagnostic angiography confirmed left superficial femoral artery stenoses amenable to endoluminal intervention. Angioplasty was subsequently scheduled and performed.

Approximately 18 h after his angioplasty, the patient complained of bilateral swelling below his mandible, with some discomfort on swallowing and on palpation but without respiratory compromise.

On examination he had two prominent, palpable, tennis-ball-sized masses in his submandibular region, consistent with submandibular salivary glands (Fig. 1). There was mild bilateral parotid swelling, but no obvious abnormality of the other salivary glands or ducts. There was no history of dry eyes or dry mouth. Examination of his other systems was unremarkable. Rheumatoid factor and anti-nuclear antigen were negative. Coxsackie-virus serology confirmed past infection.

Further questioning revealed a similar episode of submandibular swelling after his original diagnostic angiogram. Twenty-four hours after that event he developed bilateral masses consistent with submandibular gland swelling, less severe than on this occasion and which resolved over 24 h from the time of onset. In both cases less than 100 ml of Ultravist 300 was used.

The patient was kept for observation and then discharged. Outpatient review 11 days later demonstrated marked reduction in the submandibular swelling.

Discussion

Large-scale studies (Japanese Committee Report on 337 647 cases) have suggested that adverse drug reactions to ionic contrast are of the order of 12%, and to non-ionic contrast of 3%. Seventy per cent of these reactions occurred within 5 min of administration, the majority being minor reactions such as nausea, heat sensation, urticaria, itching and vomiting. There was no report of sialadenitis in that study.

The first reported case of contrast-related sialadenitis was in 1956 and a search of the literature reveals 33 subsequent reported cases. The majority have been after intravenous ionic-contrast administration during excretory urography. The most severe complication reported in the English literature was a facial nerve palsy requiring decompression by Koch et al.3

It is well documented that salivary glands concentrate iodine.4 In previous cases it has been noted...
that sialadenitis is associated with elevated serum iodide levels, often in combination with severe renal impairment (e.g. haemodialysis patients). The exact mechanism of this reaction is unclear, but is presumably related to the idiosyncratic reactions of systemic iodism. The majority of patients have been described to resolve without intervention. Some have improved with antihistamines or corticosteroids. This report is the first that we are aware of after any therapeutic endovascular procedure.

In summary, iodide-induced sialadenitis, or “iodide mumps”, is a rare complication of iodide-based contrast administration which should be known to vascular surgeons who use contrast media. It has potential immediate sequelae in terms of airway obstruction and patient discomfort.

References


Accepted 12 October 1999