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SHORT COMMUNICATION

# An unusual complication after interventional cardiology reveals and infrequent condition: Idiopathic CD4 deficiency

**Alberto Fica**[a,*], **Fernando Verdugo**[b], **María V. Landaeta**[c], **Alfredo Flores**[b], **Ingmar Roessler**[d]

[a] *Head Infectious Disease Unit, Hospital Militar de Santiago, Av. Fernando Castillo Velasco 9100, La Reina, Santiago, Chile*
[b] *Internal Medicine Unit, Hospital Militar de Santiago, Chile, Av. Fernando Castillo Velasco 9100, La Reina, Santiago, Chile*
[c] *Immunology Unit, Hospital Militar de Santiago, Chile, Av. Fernando Castillo Velasco 9100, La Reina, Santiago, Chile*
[d] *Cardiovascular Diseases Department, Hospital Militar de Santiago, Chile, Av. Fernando Castillo Velasco 9100, La Reina, Santiago, Chile*

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**Summary** Herpes zoster (HZ) is of rare occurrence after interventional procedures with few events reported until now. A 74 year-old man with a past medical history of idiopathic thrombocytopenic purpura, splenectomy, autoimmune hemolytic anemia, and polymyalgia rheumatica developed HZ on the right median nerve 7 days after he underwent a coronariography for managing an acute coronary syndrome. He evolved with cutaneous dissemination and required intravenous acyclovir therapy. Laboratory evaluation disclosed a previously unknown idiophatic CD4 lymphocytopenia. HZ should be added to the list of complications after interventional cardiology and associated immunosuppressive factors ruled out.


* Corresponding author. Tel.: +56 2 23316759; fax: +56 2 23316762.
*E-mail addresses:* albertofica@gmail.com (A. Fica), fdoverdugo@gmail.com (F. Verdugo), mavilami@gmail.com (M.V. Landaeta), aafloresr@gmail.com (A. Flores), ingmarroessler@gmail.com (I. Roessler).

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## Introduction

Herpes zoster (HZ) is a common event in the population especially among elderly people, but rarely reported after thoracic, neurological or spinal interventions or after extraction of the third molar [1—5]. For instance, 4 cases were described in one center during one year (incidence not reported) among patients undergoing spinal surgery 2 days to 5 months after the procedure [1]. Involved dermatomes have been related to the surgical site suggesting that trauma was the triggering factor [1—3]. Of the 8 postsurgical HZ cases identified in the references reported, only 2 suffered from immunesupression (multiple myeloma and methotrexate use) [1—5]. In this report, we describe a case of herpes zoster that appeared after a percutaneous coronary intervention (PCI) made by transradial catheterization (TRC). To the best of our knowledge this is the first description on the literature that associates HZ with arterial catheterization. This infrequent complication revealed a previously undiagnosed and rare immunosuppressive condition.

## Case report

A 74 year-old man with a past medical history of dyslipidemia, idiopathic thrombocytopenic purpura and splenectomy, autoimmune hemolytic anemia, and polymyalgia rheumatica was admitted in our institution on September 2013 by severe unstable angina. He reported recurrent episodes of esophageal candidiasis in the last 3 years with several negative HIV tests. These episodes were assumed secondary to prednisone prescribed for polymyalgia rheumatic (dose range 5—30 mg/day). The patient was receiving at the time of admission 5 mg/day of prednisone. Initial evaluation discarded myocardial infarction by EKG and enzymes, and a CT scan also ruled out aortic aneurysm and pulmonary embolism. An upper gastrointestinal endoscopy showed mild esophageal candidiasis. Laboratory evaluation indicated mild anemia (hemoglobin 12.2 g/dL), normal white blood cell count (10 000/μL), normal lymphocyte count (1399/μL), thrombocytopenia (86 000/μL), and elevated erythrocyte sedimentation rate (47 mm/h), lactic dehydrogenase (309 U/L, reference <250), and C-reactive protein (44.3 mg/dL, reference <5 mg/dL). A myocardial perfusion scan demonstrated inferior wall myocardial ischemia. A coronariography performed by TRC revealed a significant lesion at the right dominant coronary artery

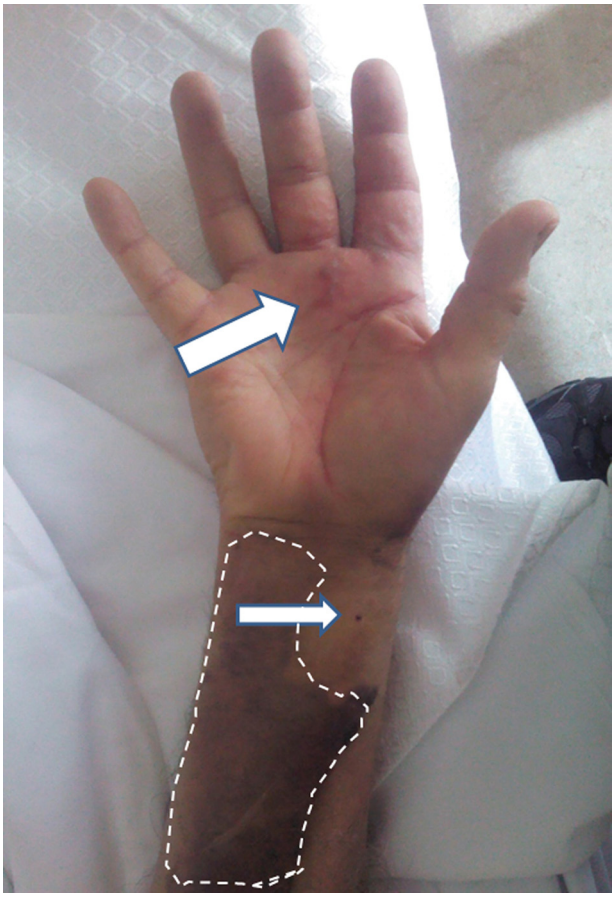

**Figure 1** Vesicular rash that follows median nerve distribution (white arrow) with a puncture on the radial artery (thin white arrow) and ecchymosis involving the forearm (white broken line). Patient gave an informed consent to reproduce this image.

that was resolved by angioplasty with a drug-eluting stent. The patient was discharged to a general ward with standard treatment including aspirin, clopidogrel, and statins. Daily prednisone dose was increased without apparent reason to 40 mg per one day and then reduced to 20 mg.

Three days after the procedure the patient developed a sudden and intense electrical pain in the right forearm in relation to the vascular access. Physical examination showed local ecchymosis but no other vascular or neurological complications. At the seventh day of TRC a vesicular rash was detected distally to the vascular access following median nerve distribution (Fig. 1), pain increased and the diagnosis of HZ was made based on clinical criteria (right median nerve dermatome). Treatment with oral valacyclovir (3 g/day) was initiated and prednisone suspended. The patient referred no previous episodes of HZ and HIV testing was again negative. After 72 h of treatment lesions disseminated compromising also the back (dorsal