Angiol Cir Vasc. 2016;12(2):97–100

ANGIOLOGIA E CIRURGIA VASCULAR

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CASE REPORT

Blue finger syndrome – case report☆

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Available online 31 March 2016

KEYWORDS
Blue finger syndrome;
Endovascular treatment;
Right subclavian artery

Abstract Blue Finger Syndrome is a manifestation of atheromatous embolization at the upper limb. It's a rare pathology, with risk of recurrence and tissue lose, which could be particular troublesome at the upper limb. The authors present a case of a Blue Finger Syndrome secondary to an atherosclerotic plaque in the right subclavian artery (which is an unusual location), corrected with a stent. The majority of authors consider that the embolization source should be corrected. If it is not corrected, there is a risk of re-embolization, which may threaten the limb viability. Endovascular treatment is safe and efficacious. Direct stenting, especially with closed stents design appear to be the safest technique to trap thrombi and prevent distal thrombus embolization.

PALAVRAS-CHAVE
Blue finger syndrome;
Tratamento endovascular;
Artéria subclávia direita

Blue finger syndrome – a propósito de um caso clínico

Resumo O Blue Finger Syndrome é uma manifestação da embolização distal nos membros superiores. É uma patologia rara, com risco de recorrência e de perda tecidular, o que poderá ser particularmente grave no membro superior. Os autores apresentam um caso de um Blue Finger Syndrome, secundário a uma placa de aterosclerose na artéria subclávia direita (localização esta particularmente rara) corrigida através da colocação de *stent*. A maioria dos autores considera que a fonte embólica deverá ser corrigida. A sua não correção poderá significar a recorrência do fenómeno, com risco de perda de membro. O tratamento endovascular tem-se mostrado seguro e eficaz. A colocação de *stent* (em particular de malhas fechadas) aprisiona a placa de aterosclerose, prevenindo a embolização distal.

☆ Presented at the XV Congress of the SPACV 11 June 13, 2015.

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http://dx.doi.org/10.1016/j.ancv.2016.01.007

Introduction

Blue finger syndrome (BFS) describes acute digital cyanosis secondary to microembolism from a proximal atheromatous source.[1–3] Due to its lethality, the diagnosis should be promptly established and an aggressive treatment immediately initiated, in order to prevent recurrences.[1–3] The authors present a case of a BFS secondary to an atherosclerotic plaque in the right subclavian artery.

Case report

Male, 79 years old, smoker, was admitted with bluish discoloration of the distal phalanges in the right hand (Fig. 1). He denies any history of trauma, cold exposition, previous episodes of fingers color changes, weight loose and other constitutional symptoms. The humeral, radial and cubital pulses were present bilaterally with normal characteristics. No murmurs or bruits were audible. No neurologic sign or symptoms were recorded. There were no differences in the arterial pressure between the right and left upper limbs. He underwent a Doppler ultrasound which revealed an atherosclerotic plaque in the right subclavian artery. This result was confirmed with CT scan (Fig. 2). The CT scan did not show any skeletal or muscle anomaly. He also performed an electrocardiogram and posteriorly a transthoracic and transesophageal echocardiograms which were normal. No hematologic or prothrombotic abnormality was found. The patient was submitted to endovascular repair. Under local anesthesia, using a right humeral approach, a 7Fr Boston Scientific sheath, with 11 cm length was used in the right humeral artery. The plaque was crossed by a 0.035 J hydrophilic guide wire, then using a 0.035 stiff guide wire a self-expandable stent Cordis S.M.A.R.T.®CONTROL® (9 mm × 30 mm) was deployed (Figs. 3 and 4). The stent was posteriorly dilated. The patient was on double antiplatelet therapy during two months and chronically on aspirin and statin. Six months of the follow-up the patient is asymptomatic, without recurrences and the CT scan performed showed that the stent is patent without fractures (Fig. 5).

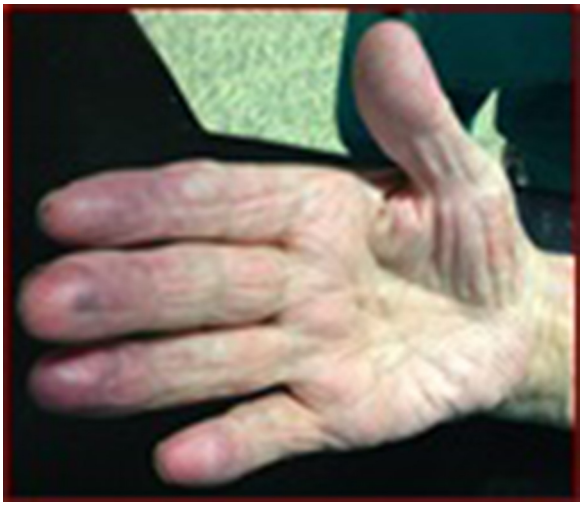

Figure 1 Patient with cyanotic fingers at the right hand.

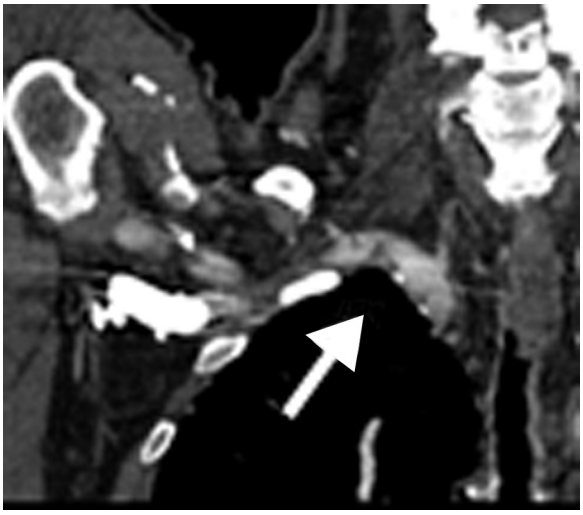

Figure 2 CT scan showing the atherosclerotic plaque at the right subclavian artery.

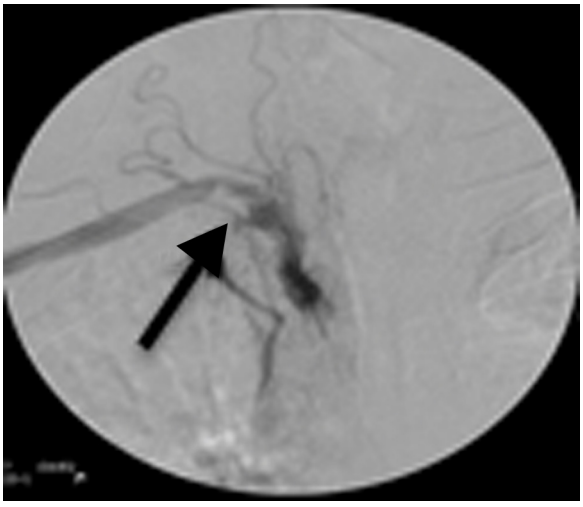

Figure 3 Angiography demonstrating an irregular atherosclerotic plaque at the right subclavian artery.

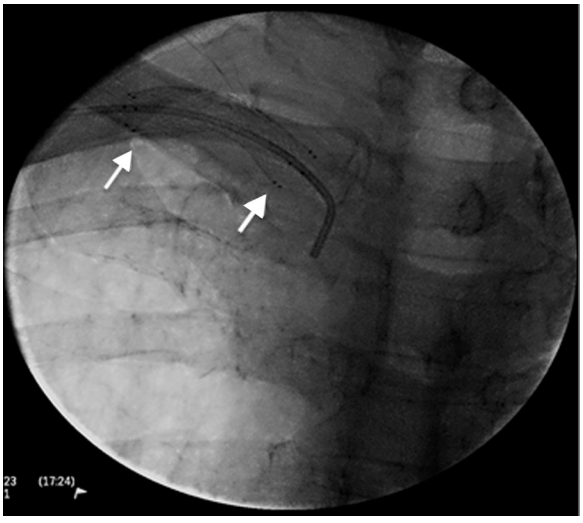

Figure 4 Stenting at the right subclavian artery.